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4811  
26

DIE CONCHYLIIEN  
DES  
MAINZER TERTIÄRBECKENS.

VON

DR. FRIDOLIN SANDBERGER.

PROFESSOR DER MINERALOGIE AM GROSSHERZOGLICHEN POLYTECHNICUM ZU KARLSRUHE

TAFELN.

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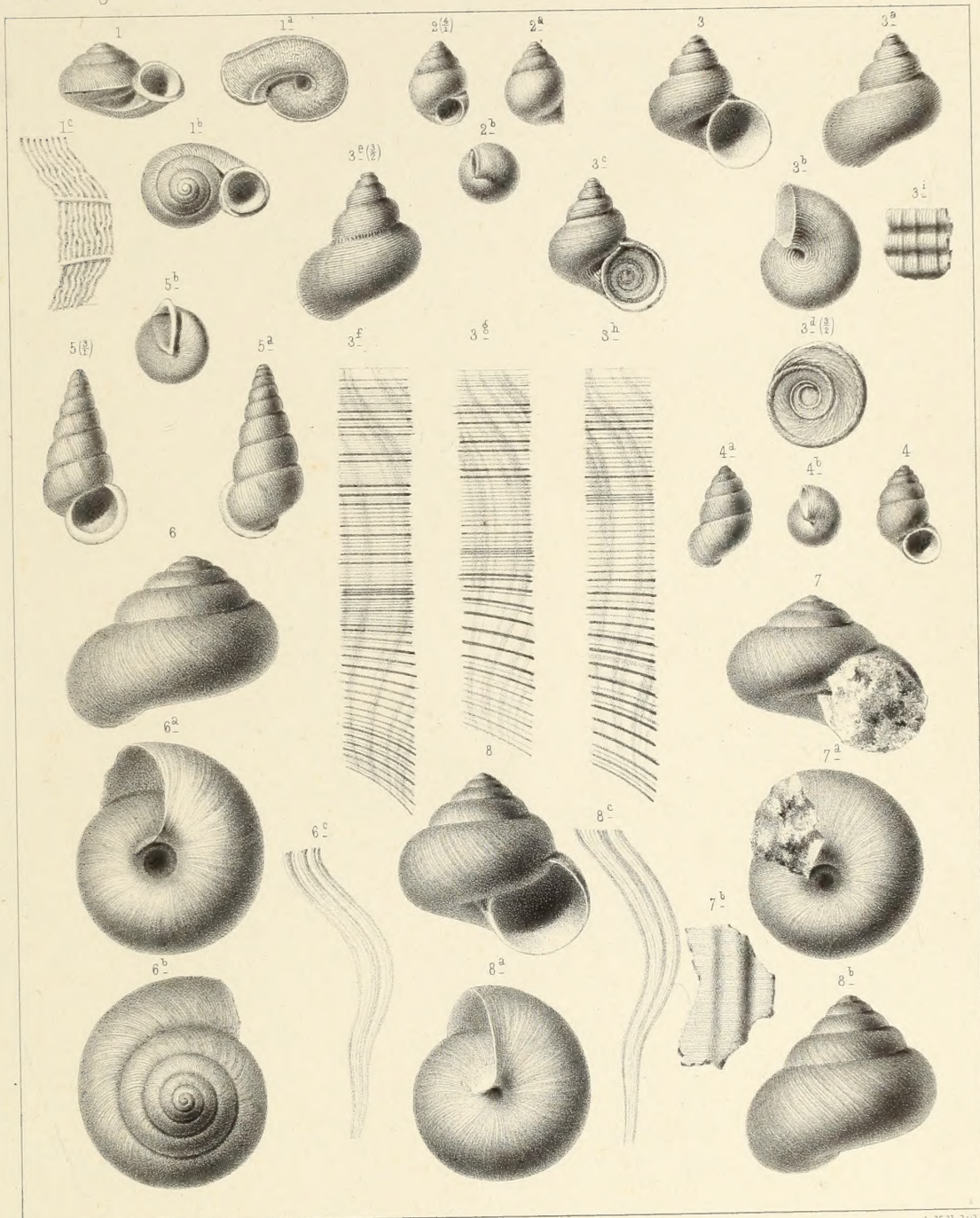
WIESBADEN:

KREIDEL UND NIEDNER, VERLAGSHANDLUNG.

Sm  
1858.  
bis  
1862.







Wiesbaden, Verlag v. Kreidel & Niedner.

A Kolb lith.

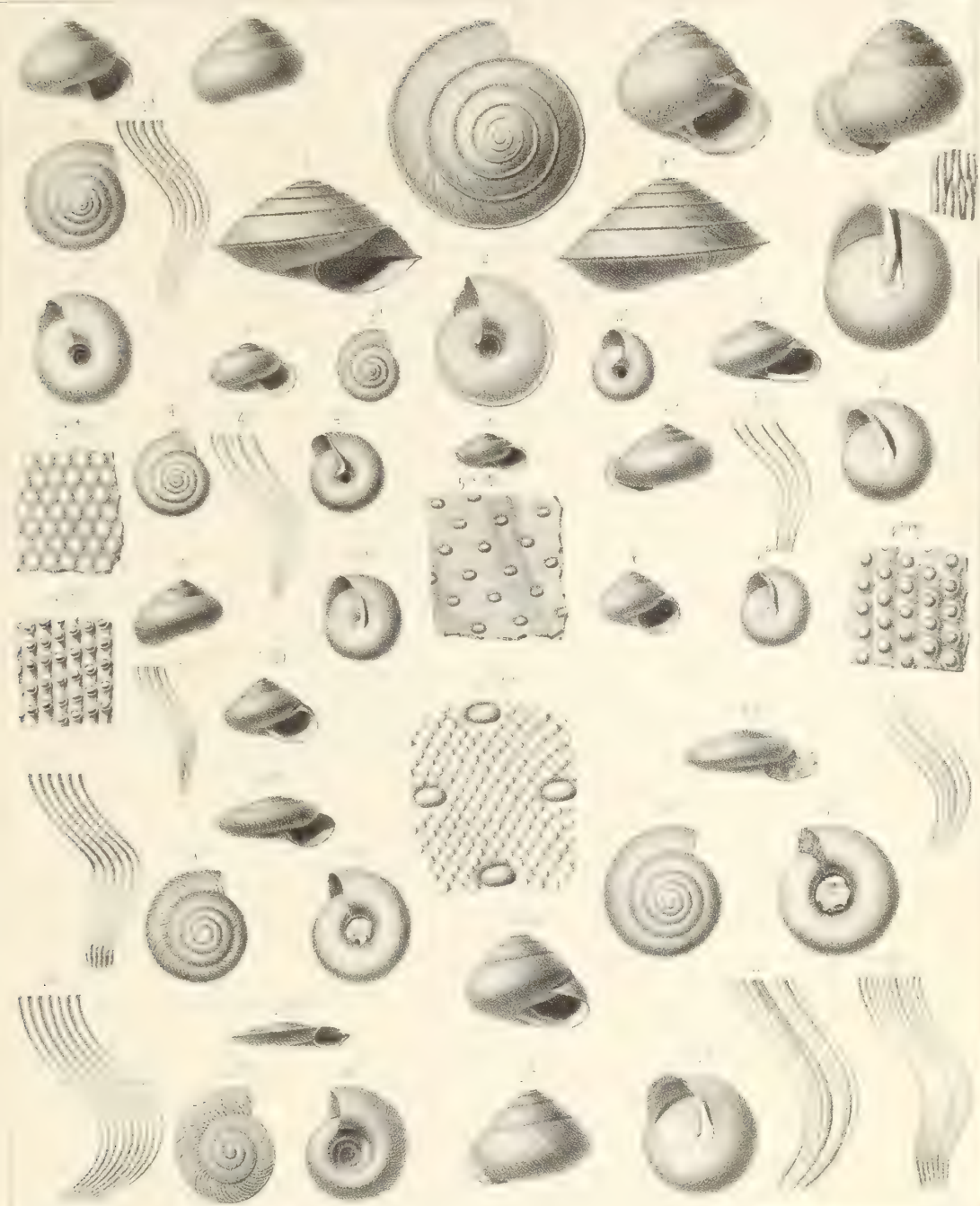
1. *Strophostoma tricarinatum* M. Braun.  
2. *Graspedopoma utriculosum* Sandb.  
3. *Cyclostoma bisulcatum* v. Kiehn.

4. *Cyclostoma Pupa* A. Braun  
5. *Pomatias Labellum Thomae* sp.

6. *Helix subverticillus* Sandb.  
7. ——— ead. var.  
8. ——— *stenotrypa* A. Braun.







Wiesbaden Verlag v. Kreydel & Niedner.

J. B. Kolb Lith.

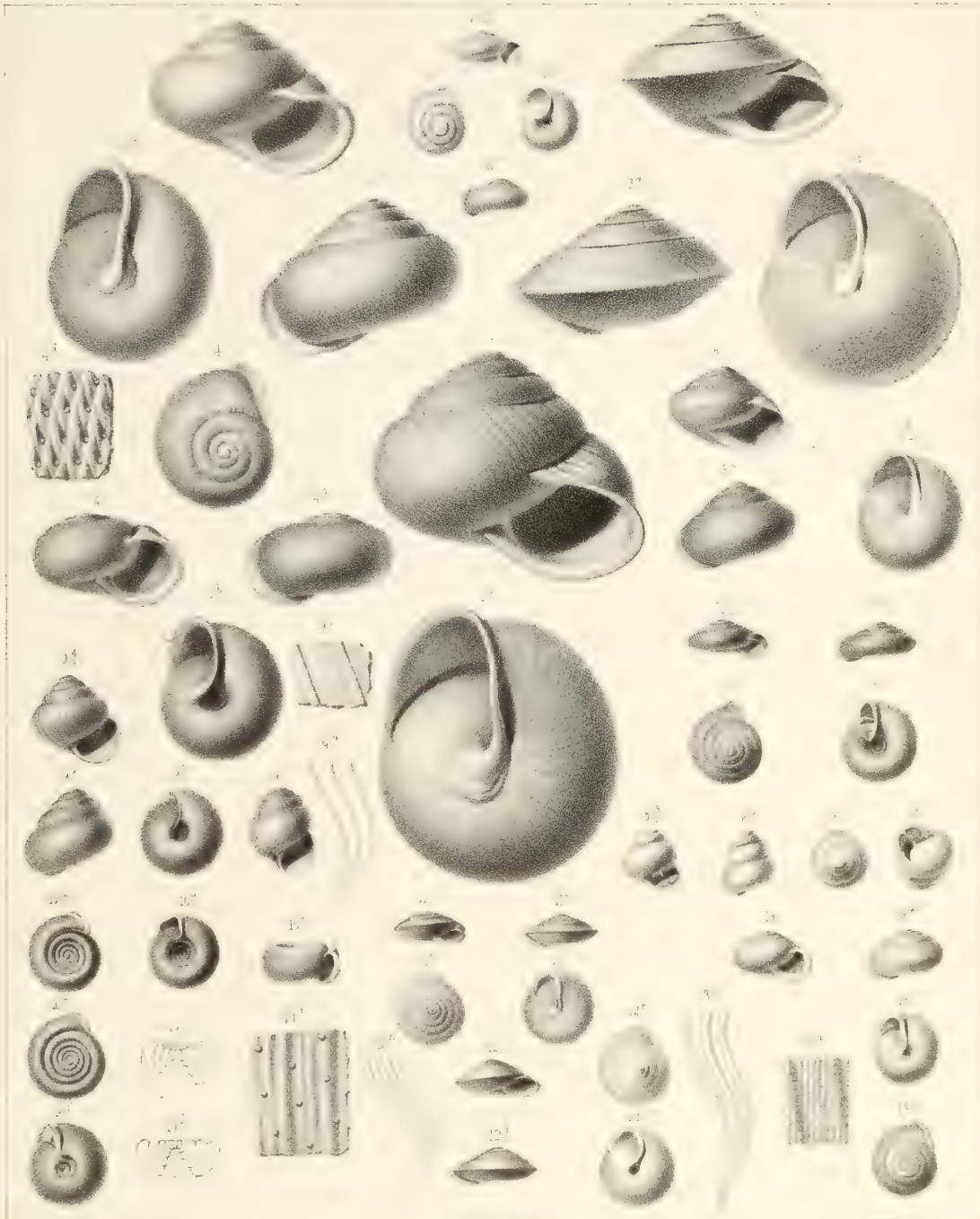
1. *Helix Goldfussii* Thomae.
2. — *imbricata* A. Braun.
3. — *deplanata* Thomae.
4. — *subvillosa* Sandb.

5. *Helix punctigera* Thomae.
6. — *crebripunctata* Sandb.
7. — *suboccidentalis* Sandb.
8. — *lunula* Thomae.

9. *Helix multicastrata* Thomae.
10. — *disculus* A. Braun.
11. — *subsoluta* Sandb.
12. — *expansilabris* id.







Wiesbaden, Verlag v. Kreidel & Niedner.

A. Kolb lith.

1. *Helix pomiformis* A. Braun.
2. — *Mattiaca* Stein.
3. — *Rahtii* A. Braun.
4. — *lepidotricha* A. Braun.

5. *Helix subcarinata* A. Braun.
6. — *pulchella* Müll.
7. — *uniplicata* A. Braun
8. — *pupula* A. Braun
9. — *paludinaeformis* A. Braun.

10. *Helix involuta* Thomae
11. — *phacodes* id.
12. — *subtenticula* Sandt
13. — *osculum* Thomae typus.







Wiesbaden, Verlag v. Krendel & Niedner.

A. 2. 1. 11

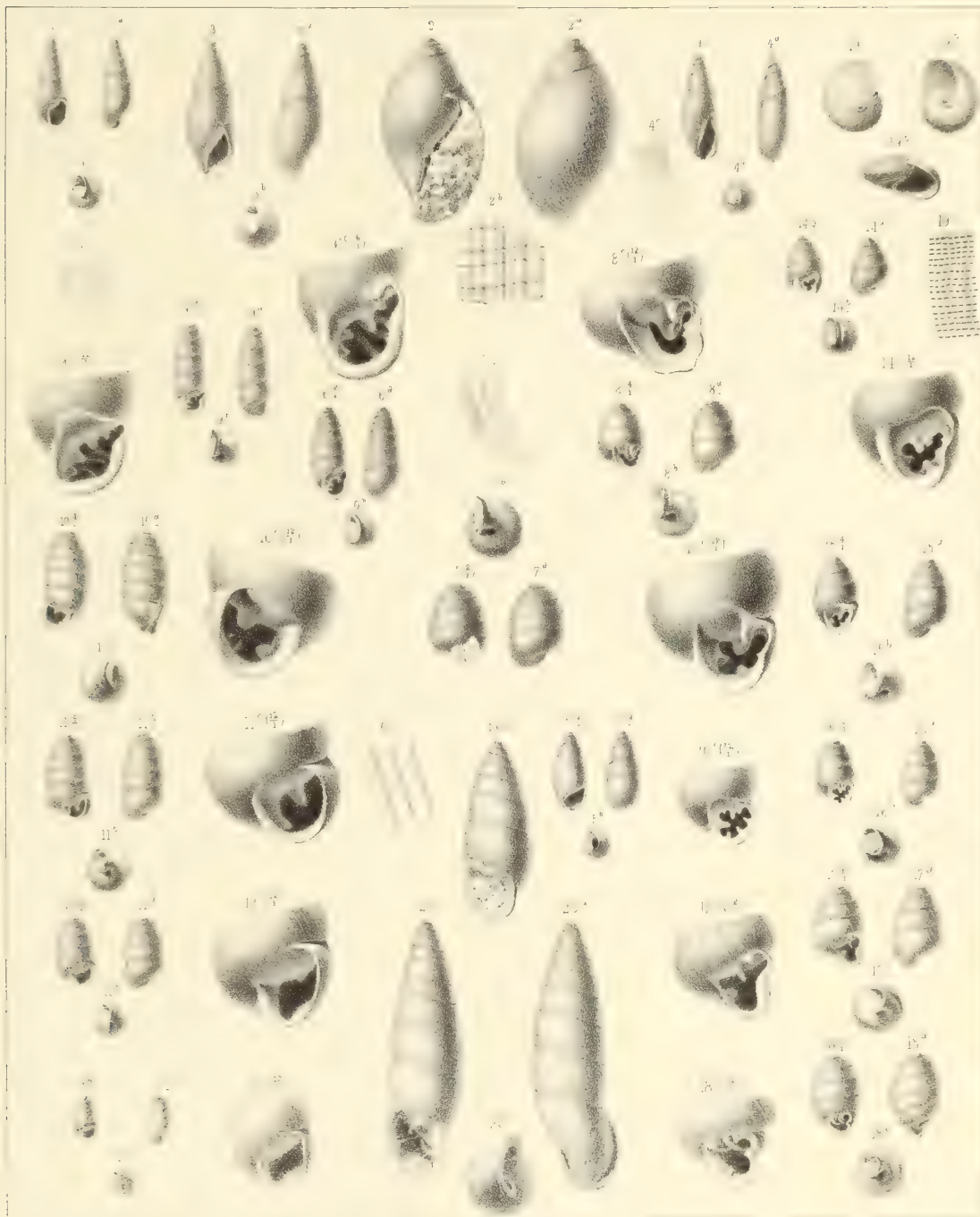
1. *Helix osculum* Thomae var. *depressa*
2. — *affinis* id.
3. — *Moguntina* Desh. var. *major*
4. — *ead.* var. *minor*

5. *Helix Moguntina* Desh. var.
6. *ead.* var. *splendidaeformis*.
7. *Helix deflexa* A. Braun.

8. *Helix hortulana* Thoms.
9. — *oxystoma* id.
10. — *subsulcosa* id.
11. — *Ramondi* Al. Brongn.







Vösloden, Verlag v. Krendel & Nöcker

J. P. Koll. lit.

- |                                                            |                                              |                                                    |
|------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|
| 1. <i>Bulinus gracilis</i> Thomae                          | 8. <i>Pupa lamellidens</i> Sandb.            | 14. <i>Pupa didymodus</i> A. Braun                 |
| 2. <i>Olandina cancellata</i> Sandb.                       | 9. <i>cyindrella</i> A. Braun                | 15. <i>calistis</i> Turon. : <i>quadripunctata</i> |
| 3. <i>subsulcosa</i> Thomae                                | 10. <i>...</i>                               | 16. <i>fissidens</i> Sandb.                        |
| 4. <i>Sandbergeri</i> id.                                  | 11. <i>quadrif.</i>                          | 17. <i>trigonostoma</i> A. Braun                   |
| 5. <i>lubricella</i> A. Braun                              | 12. <i>retusa</i> id.                        | 18. <i>tiarula</i> id.                             |
| 6. <i>Pupa variabilis</i> Drap. = <i>subvariabilis</i> id. | 13. <i>cryptodus</i> id. = <i>schweizeri</i> | 19. <i>Vitrina intermedia</i> Reuss                |
| 7. <i>subconica</i> Sandb.                                 |                                              | 20. <i>Clausilia bulimiformis</i> A. Braun.        |







Dr. Ernst J. Lehnardt in Mainz

Wiesbaden, Verlag von Kreidel & Neudörfer

1877

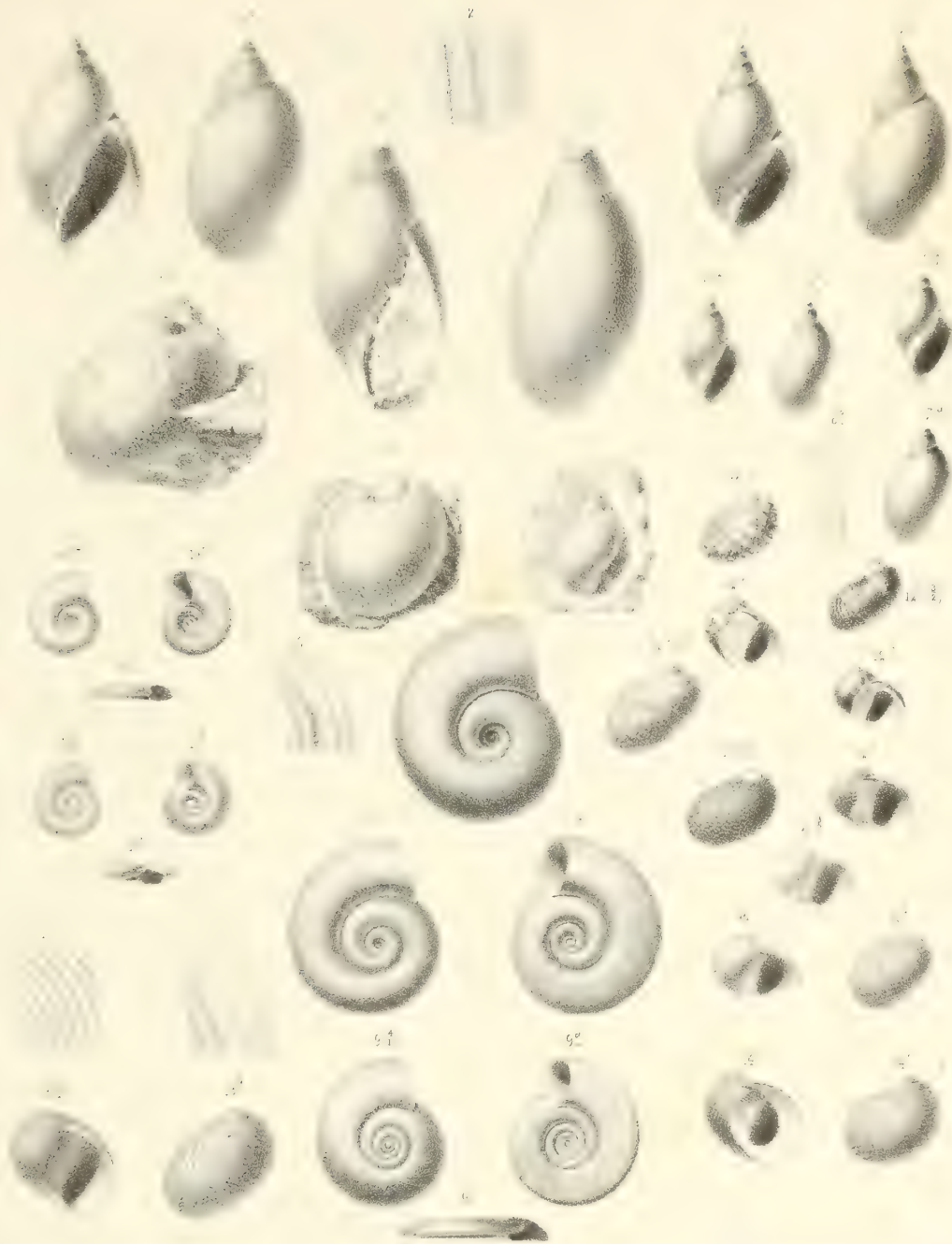
1. *Lupa suturalis* A. Braun sp.
2. — *subtilissima*
3. *Truncatella microceras* A. Braun sp.
4. *Carychium nanum* Sandb.
5. — *antiquum* A. Braun.

6. *Nematura rupa* Mysi
7. — — *microceras* A. Braun sp.
8. *Intorinella obtusa* Sandb.
- 9-9<sup>a</sup>. — *acuta* Drap. sp.
- 9<sup>a</sup>-9<sup>a</sup>. — *inflata* Faujas sp.
10. *Paludina obtusa* Sandb.

11. *Valvata deflexa* Sandb.
12. *Leptopoma unornatum* Sandb.
13. — — — — —
14. *Melanopsis callosa* A. Braun
15. *Melania Escheri* Al. Brongn.







Lith. Anst. v. J. Leinhardt in Mainz

Wiesbaden, Verlag v. Kreidel & Niedner.

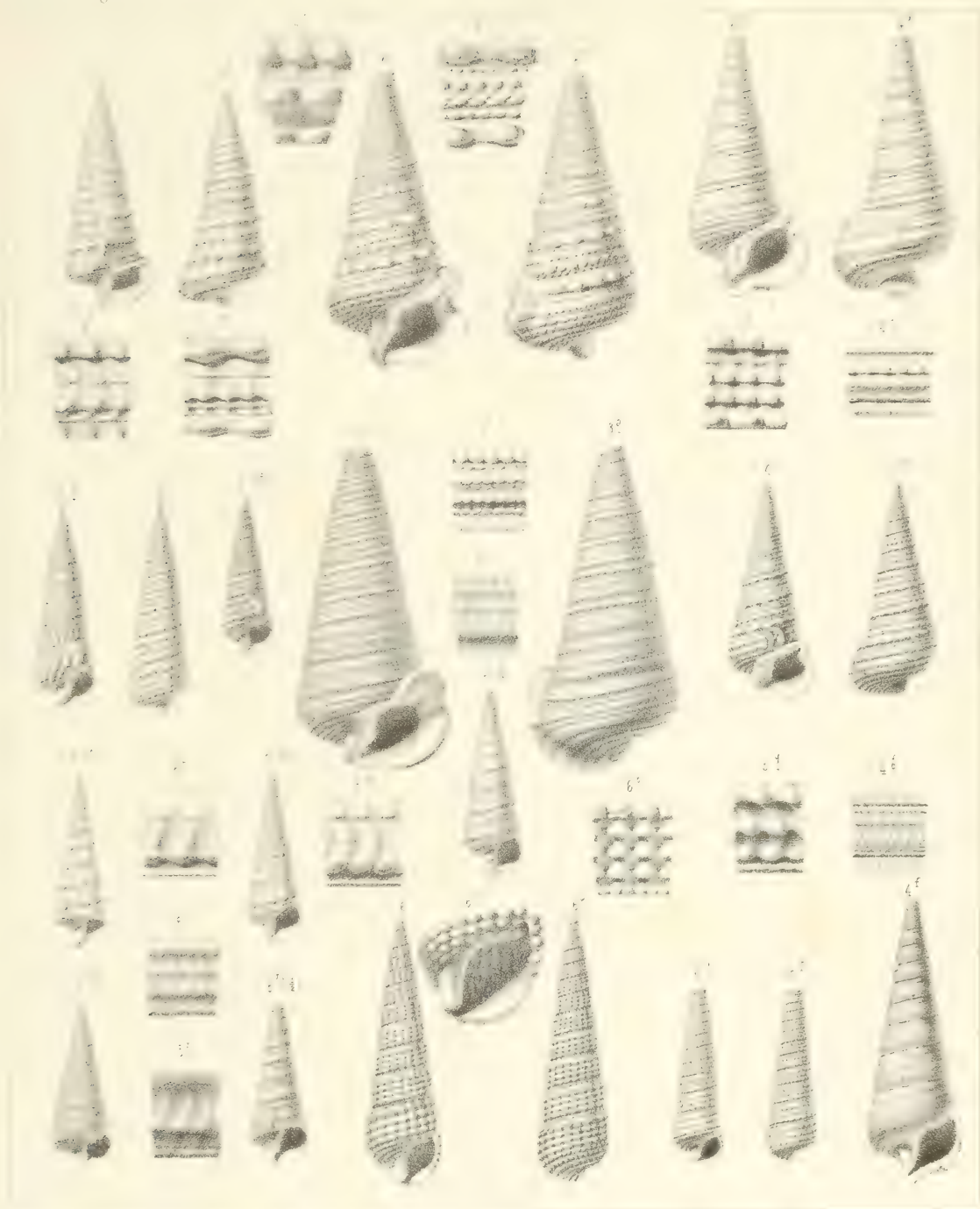
J. K. Koltz lith.

1. *Limneus pachygaster* Thomae
2. ——— *subpalustris* id.
3. ——— *cretaceus* id.
4. ——— *pachygaster* id. juv.
5. ——— *bullatus* v. Klein

6. *Limneus minor* Thomae.
7. ——— *acutilabris* Sandb.
8. *Planorbis solidus* Thomae.
9. ——— *declivis* A. Braun.
10. ——— *laevis* v. Klein.

11. *Planorbis semicostatus* Sandb. = *Kelly's* *Planorbis*
12. a, d, e, f, g. *Neritina fluviatilis* L. sp.
12. b, c. ——— *callifera* Sandb.
13. ——— *fulminifera* Sandb.
14. ——— *rhenana* Thomae





Lith. Anst. v. J. Lehnardt in Mainz.

Wiesbaden, Verlag von Kreidel & Thiedner

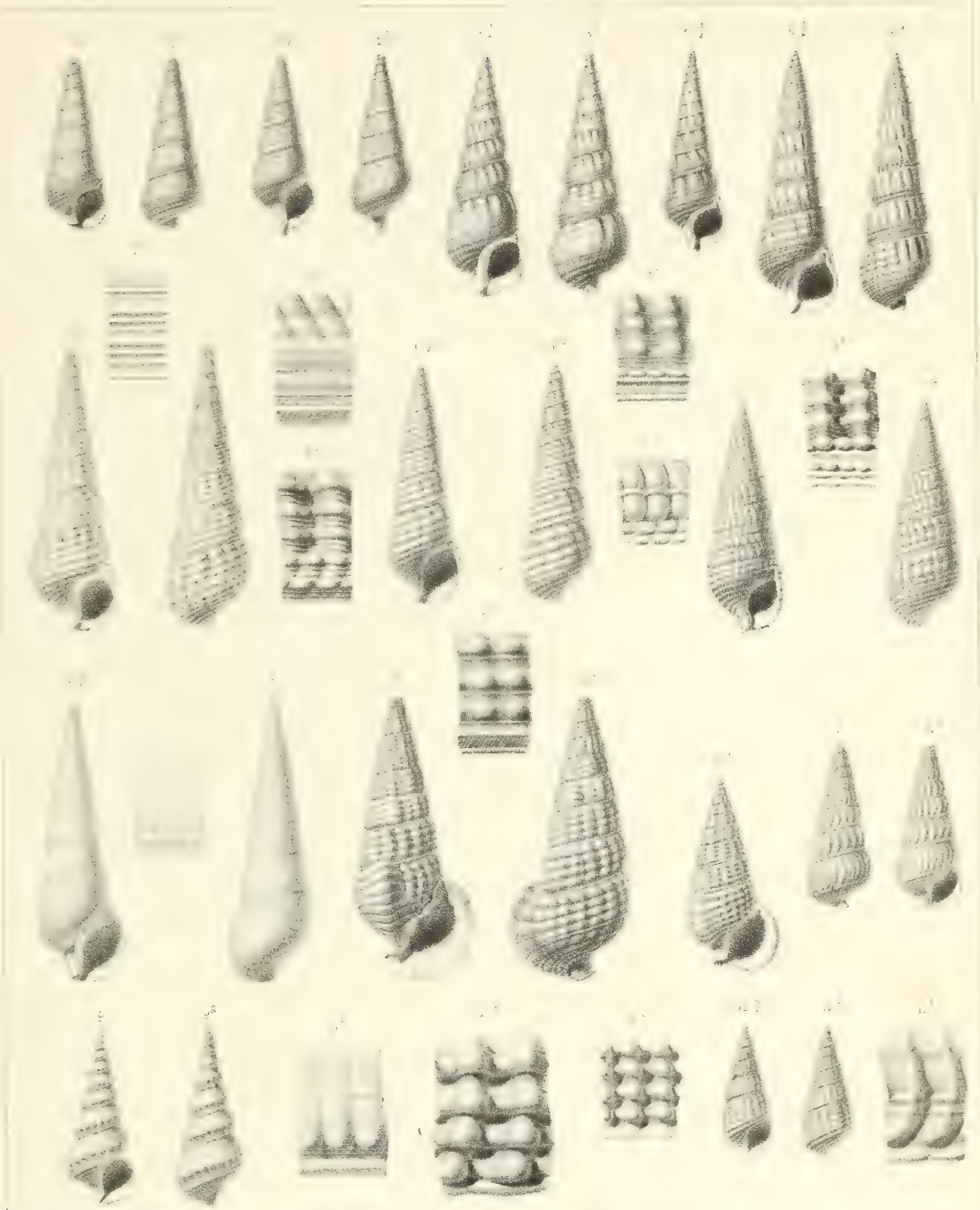
J. B. Kolb lith.

1. *Cerithium conjunctum* Desh.
2. ——— *margaritaceum* Brochi var. *calcaratum* Grat.
3. ——— *id.* var. *moniliforme* Grat.

4. *Cerithium submargaritaceum* A. Braun.
5. ——— *Lamarckii* Desh.
6. ——— *plicatum* Lam. var. *papillatum* Sandb.







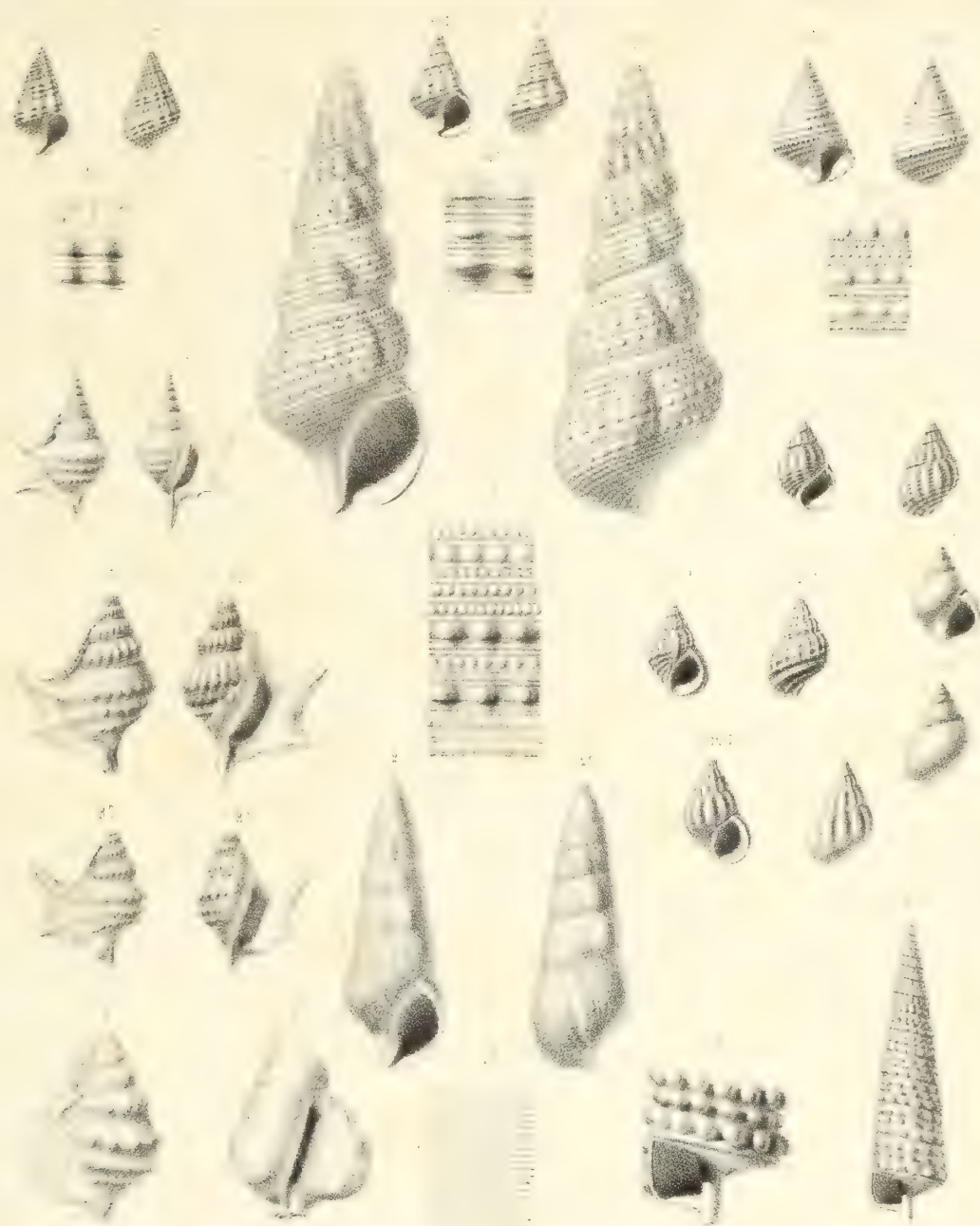
Lith. Anst. v. J. Lehnhardt in Mainz

Wiesbaden, Verlag v. Kreidel & Nodner

- |     |                                                     |     |                                                    |   |     |
|-----|-----------------------------------------------------|-----|----------------------------------------------------|---|-----|
| 1   | <i>Cerithium plicatum</i> Lam. var. <i>enodosum</i> | 5,6 | <i>Cerithium plicatum</i> var. <i>multinodosum</i> | 5 | 10. |
| 2,3 | id. var. <i>traleottii</i> Hyst.                    | 7.  | id. <i>plicatum</i> Lam. var. <i>pustulatum</i>    | 5 | 11. |
| 4.  | id. — <i>intermedium</i> S                          | 8.  | id. <i>laevissimum</i> v. Schlotk. sp.             | 5 | 12. |
|     |                                                     | 9   | id. <i>dissutum</i> Desh.                          |   |     |







v. J. Leonhardt in Mainz

*Cerithium dentatum* Deff.  
*subvaricosum* A. Braun.  
*Boblayei* Desh.  
*conoidale* Lam.

Wiesbaden, Verlag v. Kreidel & Neudner.

*Cerithium perversum* L.  
*Chenopus acutidactylus* Sandb.  
*tridactylus* A. Braun.  
*speciosus* Schiötk.

*Rissoa succincta* Nyst.  
*Duboisii* id.





Leit. Anst. v. J. Lehndardt in Mainz

Wiesbaden, Verlag v. Kreidel & Nudner

1. *Scalaria pusilla* Phil
2. ——— *crassitexta* Sandb
3. ——— *recticosta* Sandb
4. ——— *recticosta* Sandb
5. *Phasianella multicingulata* Sandb

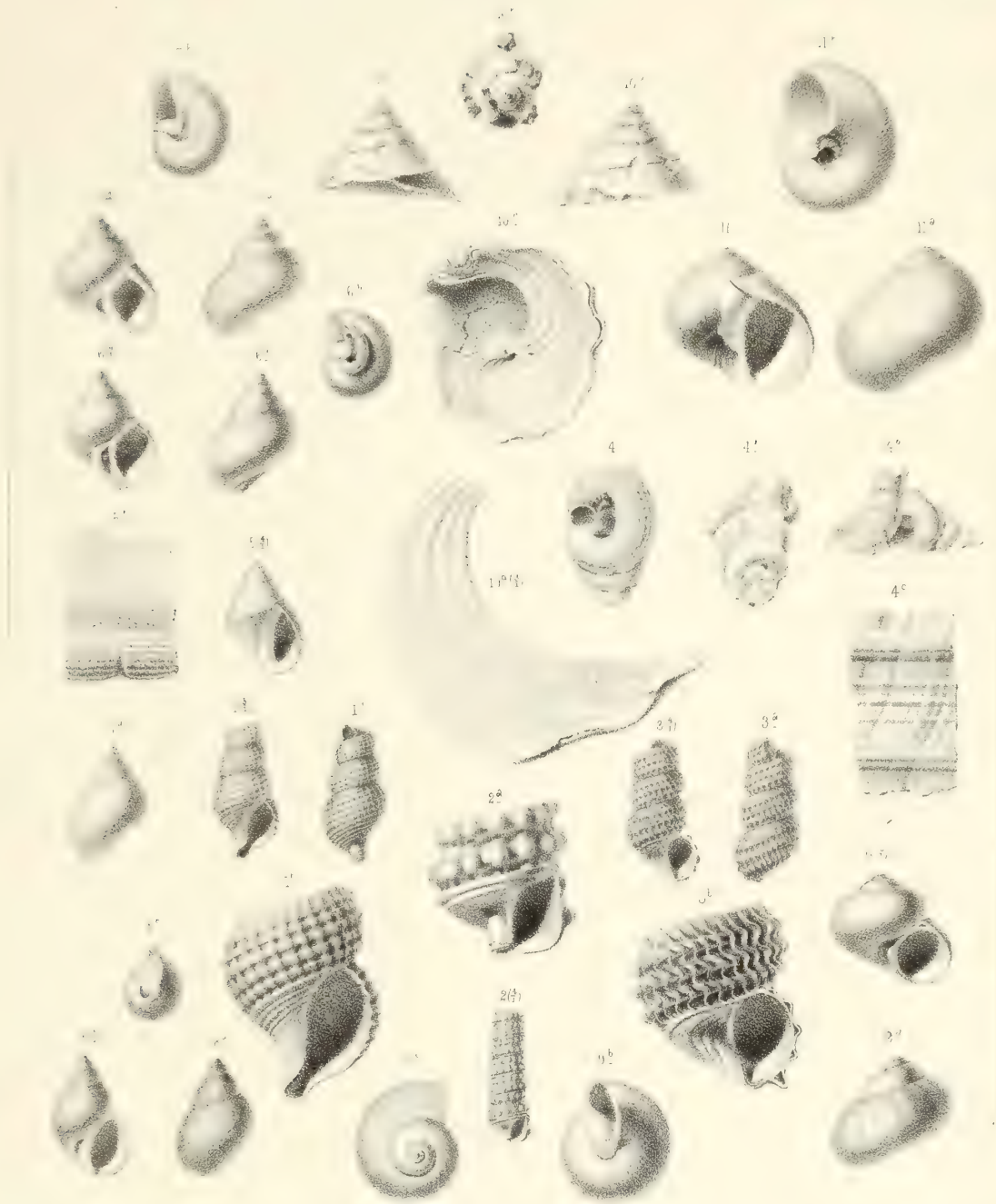
6. *Trochus incrassatus* Desh. (al)
7. ——— *rhenanus* Merian
8. ——— *sextangularis* Sandb
9. ——— *amblyconus* id
10. ——— *margaritula* Merian
11. ——— *trochlearis* Sandb

12. *Turbo alterninodosus* Sandb
13. ——— *cancellato-costatus* id
14. ——— *alterninodosus* id.
15. *Solarium bimoniliferum* id
16. *Adeorbis decussatus* id

(16) *amblyconus* (Sandb)







Lith. Anst. v. J. Lehnhardt in Mainz.

Wiesbaden, Verlag v. Kreidel & Niedner

J. B. Kolb lith.

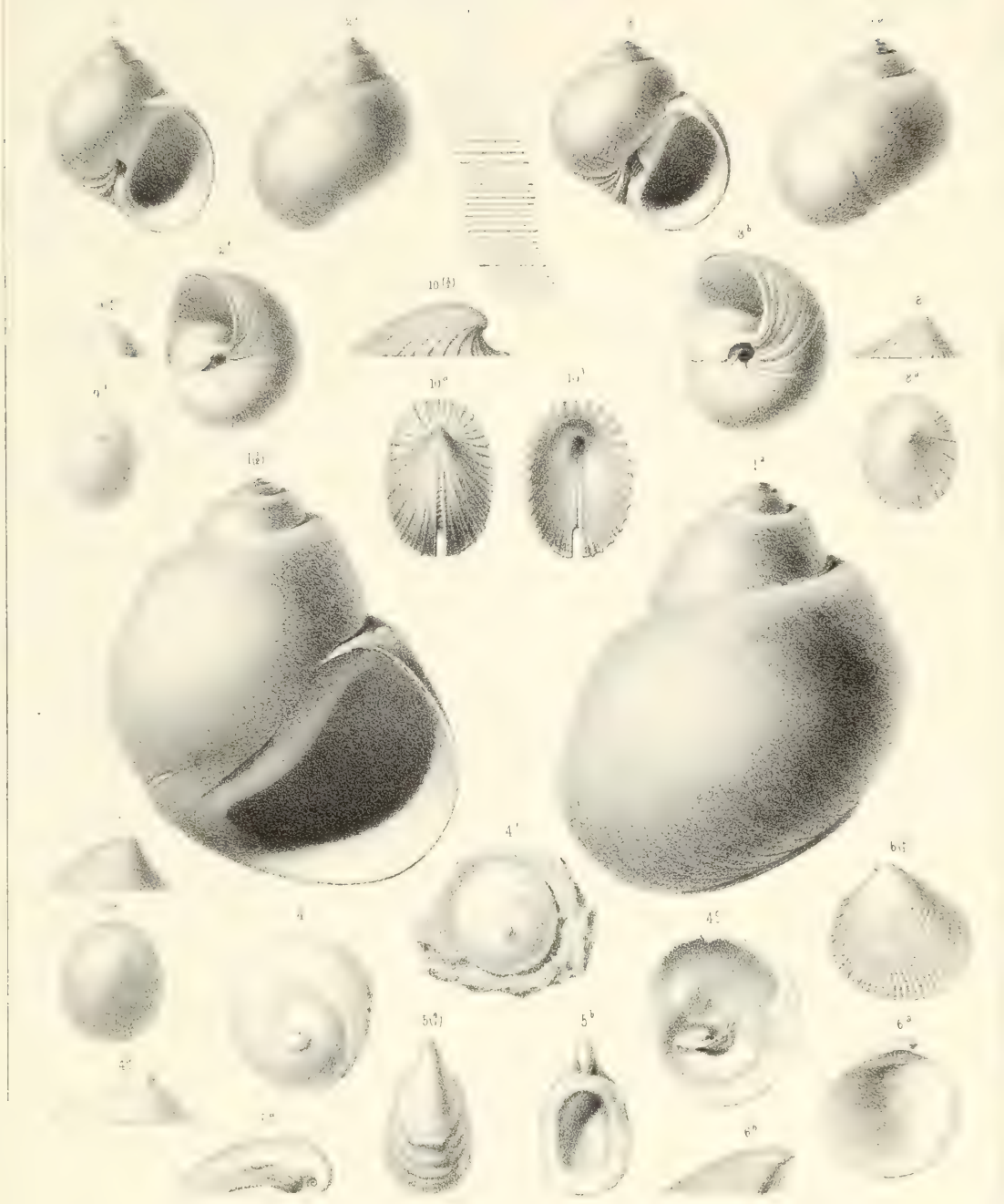
1. *Cerithium evaricosum* Sandb.
2. — *binoniliferum* id.
3. *Turritella crispula* id.
4. *Vermetus umbricatus* id.

5. *Litorina obtusangula* Sandb.
6. *Lacuna eburnaeformis* id.
7. — *subeffusa* id.

8. *Lacuna labiata* Sandb.
9. *Cyclostrema nitidum* id.
10. *Xenophora Lyelliana* Bosq.
11. *Natica hantoniensis* Som.







Lith Anst v J Lehnhardt in Mainz

Wiesbaden, Verlag v Kreidel & Niedner

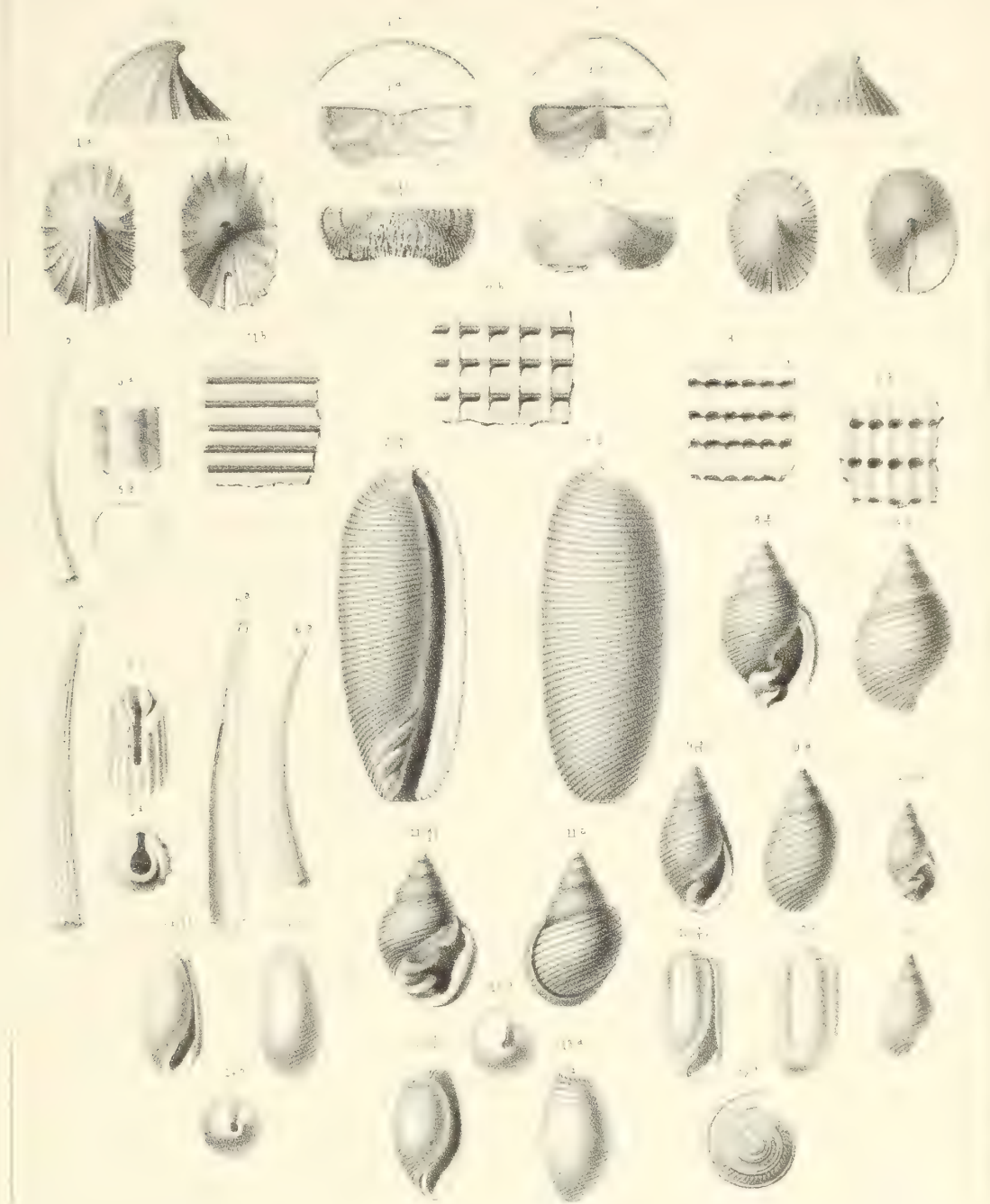
J.B. Kolb lit.

1. *Natica crassatina* Lam.
2. *Natica micromphalus* Sandb.
3. *Natica conomphalus* id.

4. *Calyptraea striatella* Nyst.
5. *Capulus navicularis* Sandb.
6. *Capulus transversus* id.
7. *Patella moguntina* A. Braun

8. *Patella alternicostata* Sandb.
9. *Patella excentrica* id.
10. *Emarginula oblonga* id.





Lith. Anst. v. J. Leubhardt in Mainz.

Wiesbaden, Verlag v. Kreidel & Neudner.

J. B. Kolb lith.

1. *Emarginula Schlotheimi* Bronn
2. ————— *concreta* Sandb
3. *Chiton tenuissimus* id.
4. ————— *virgifer* id.
5. *Dentalium Sandbergeri* Bosquet

6. *Dentalium Kickxii* Nyst
7. *Volvaria multirugulata* Sandb
8. *Tornatella Nystri* Duchastel
9. ————— *lunuliformis* Sandb
10. ————— *acuta* id

11. *Ringicula acuta* Sandb
12. *Bulla nitens* id
13. ————— *turgidula* Desh
14. ————— *conoidea* id







lith. Anst. v. J. Lehnhardt in Mainz.

Wiesbaden, Verlag v. Kreidel & Nieuwer.

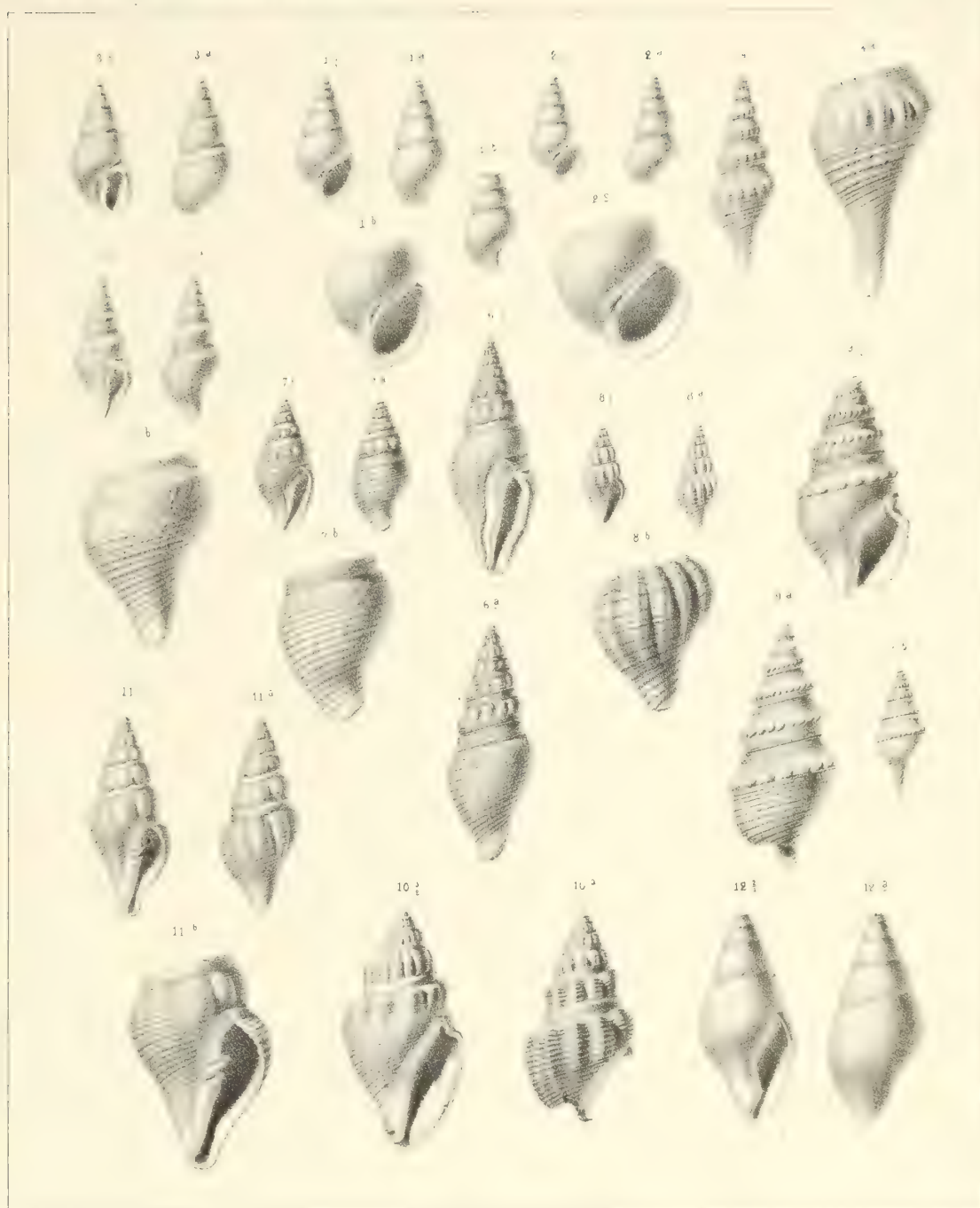
1. *Odontostoma acutiusculum* A. Braun sp.
2. *\_\_\_\_\_ lineolatum* Sandb.
3. *Conus symmetricus* Des.
4. *Turbonilla subulata* Merian sp.

5. *Turbonilla digitalis* Sandb.
6. *Eulima acicula* id.
7. *Cancellaria Brauniana* Nyst.
8. *\_\_\_\_\_ ringens* Sandb.
9. *\_\_\_\_\_ minuta* A. Braun.

10. *Pleurotoma* \_\_\_\_\_
- \_\_\_\_\_ *\_\_\_\_\_*
- \_\_\_\_\_ *Duchasne*







Gezeichnet v. J. B. Kolb in Mainz

Wiesbaden, Verlag v. Kreidel & Niedner

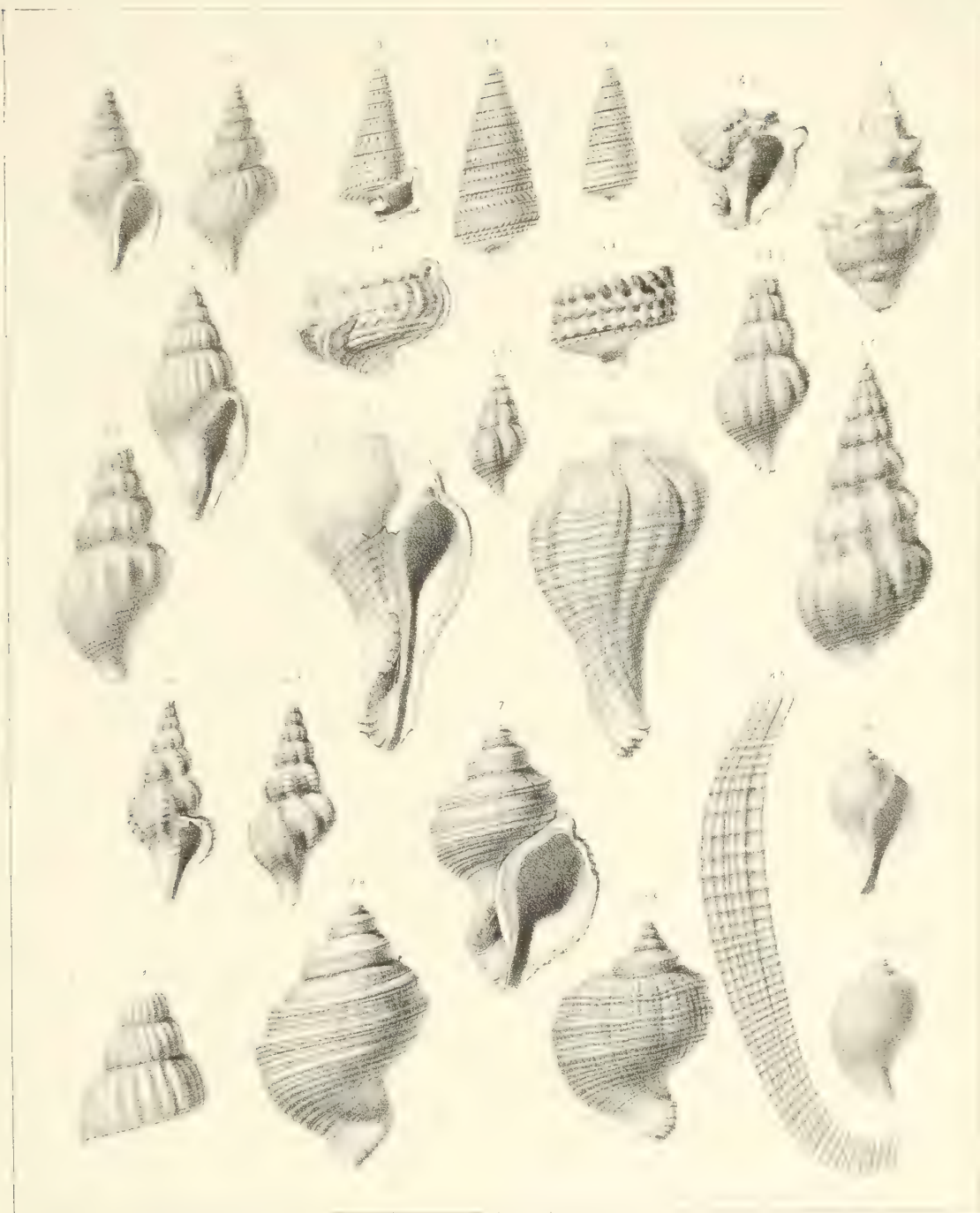
J. B. Kolb Lith.

- 1 *Litorinella Draparnaudii* Nyst sp.  
 2. ——— *taxostoma* Sandb.  
 3 *Odontostoma scalcre* Sandb.  
 4 *Pleurotoma Selysi* De Kon. var.

- 5 *Pleurotoma Parkinsoni* Deshayes.  
 6. ——— *obliquicostosa* Sandb.  
 7. ——— *subconioidea* Sandb.  
 8. ——— *scalariaeformis* Sandb.

- 9 *Pleurotoma subdenticulata* Munst.  
 10. ——— *obliquicostosa* Sandb.  
 11 *Borsonia Delucii* Nyst.  
 12 *Columbella inornata* Sandb.





Lith. Anst. v. J. Lehnharz in Mainz.

Wiesbaden. Verlag v. Krieger & Niedner.

J. B. Kist Lith.

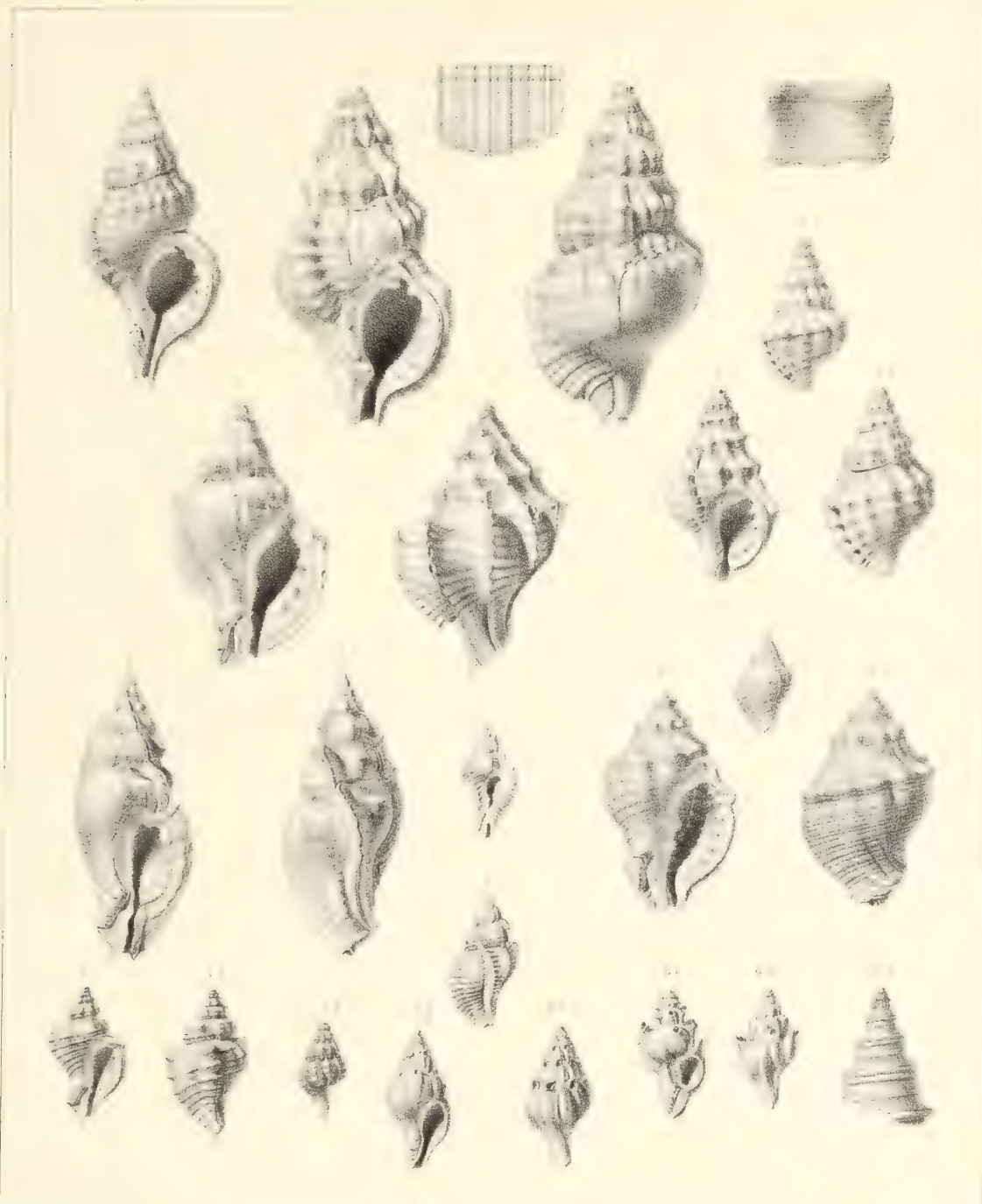
- 1 *Fusus conoideus* Sandb.
2. ——— *columbelliformis* id.
3. *Cerithium elegans* Desh.

4. *Turritella scalaris* Sandb.
5. *Fusus elongatus* Nyst
6. ——— *retroscosta* Sandb.

7. *Trochus cancellatus* Thomae sp.







Lith. Anst. v. J. Lehnhardt in Mainz.

Baden, Verlag, v. Kretzel & Niedner

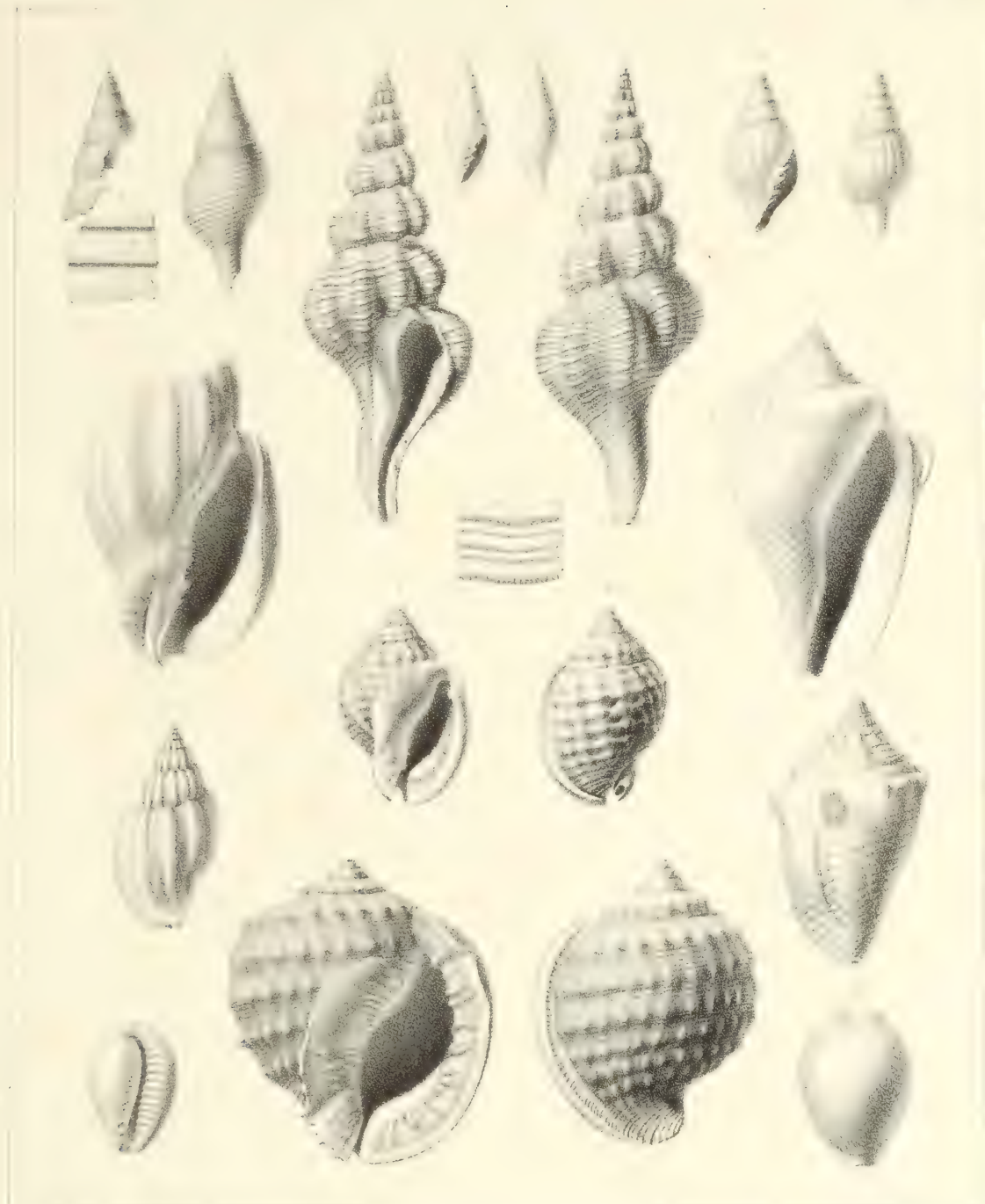
1. *Tricolum flandricum* de Kon.
2. ——— *foveolatum* Sandb.
3. *Murex Deshayesi* Nyst
4. ——— *Lamarckii* Grat.

5. *Murex ornatus* Grat
6. ——— *conspicuus* A. Braun.
7. ——— sp.

8. *Troch. carinatus* L.
9. ——— *Helicinus* Braun sp.
10. *Cuma monoplex* Desh. sr.
11. *Pleurotoma bicingulata* Sandb.







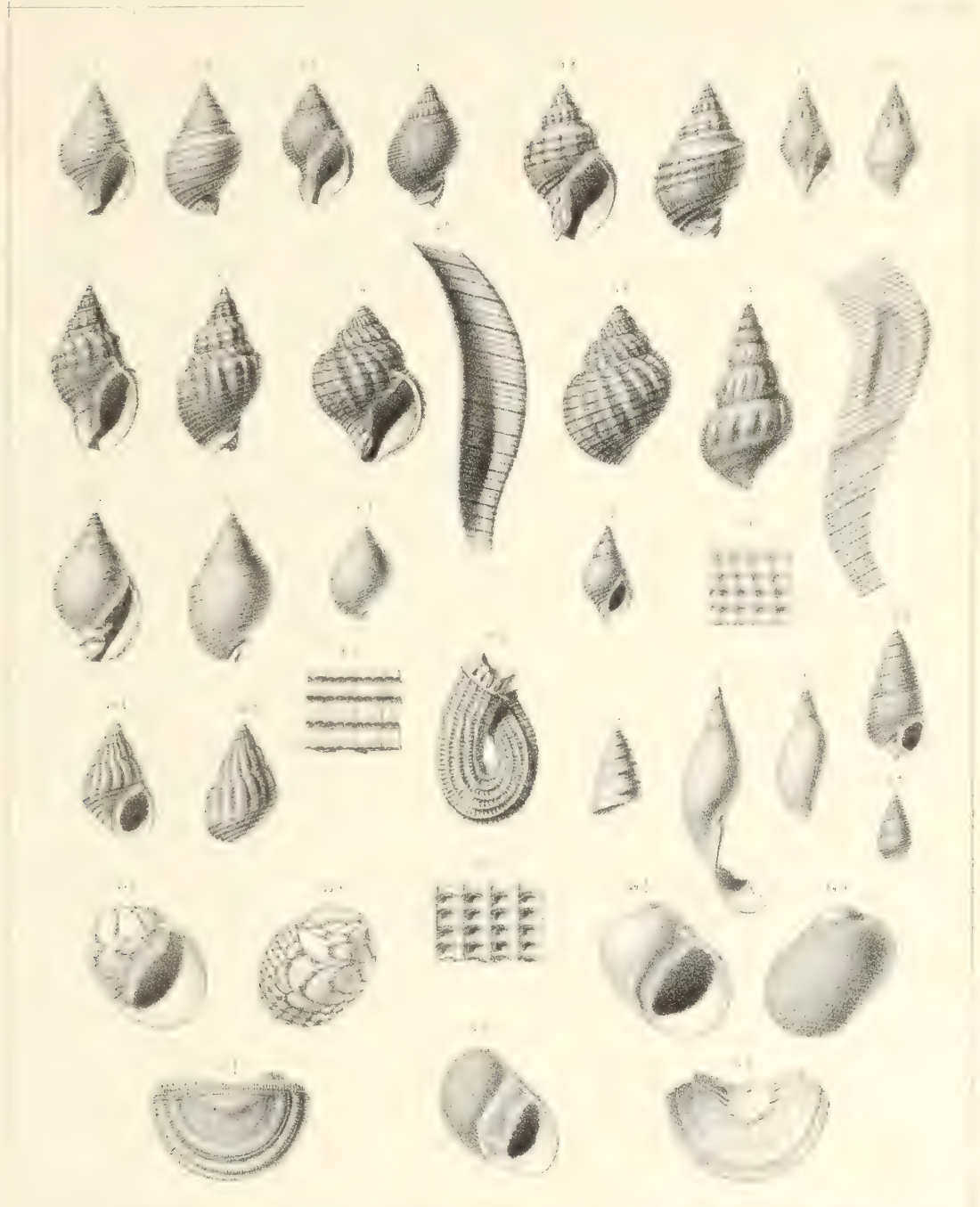
Lith. Anst. v. J. Lehnardt in Mainz.

Wiesbaden, Verlag. v. Kerdel & Niedner.

1. *Fusus Waelii* Nust var.
2. ——— *multisulcatus* id.
3. *Mitra semiplicata* Sandb

4. *Mitra perminuta* A. Braun
5. *Voluta modesta* Merian
6. ——— *Rathieri* Hébert





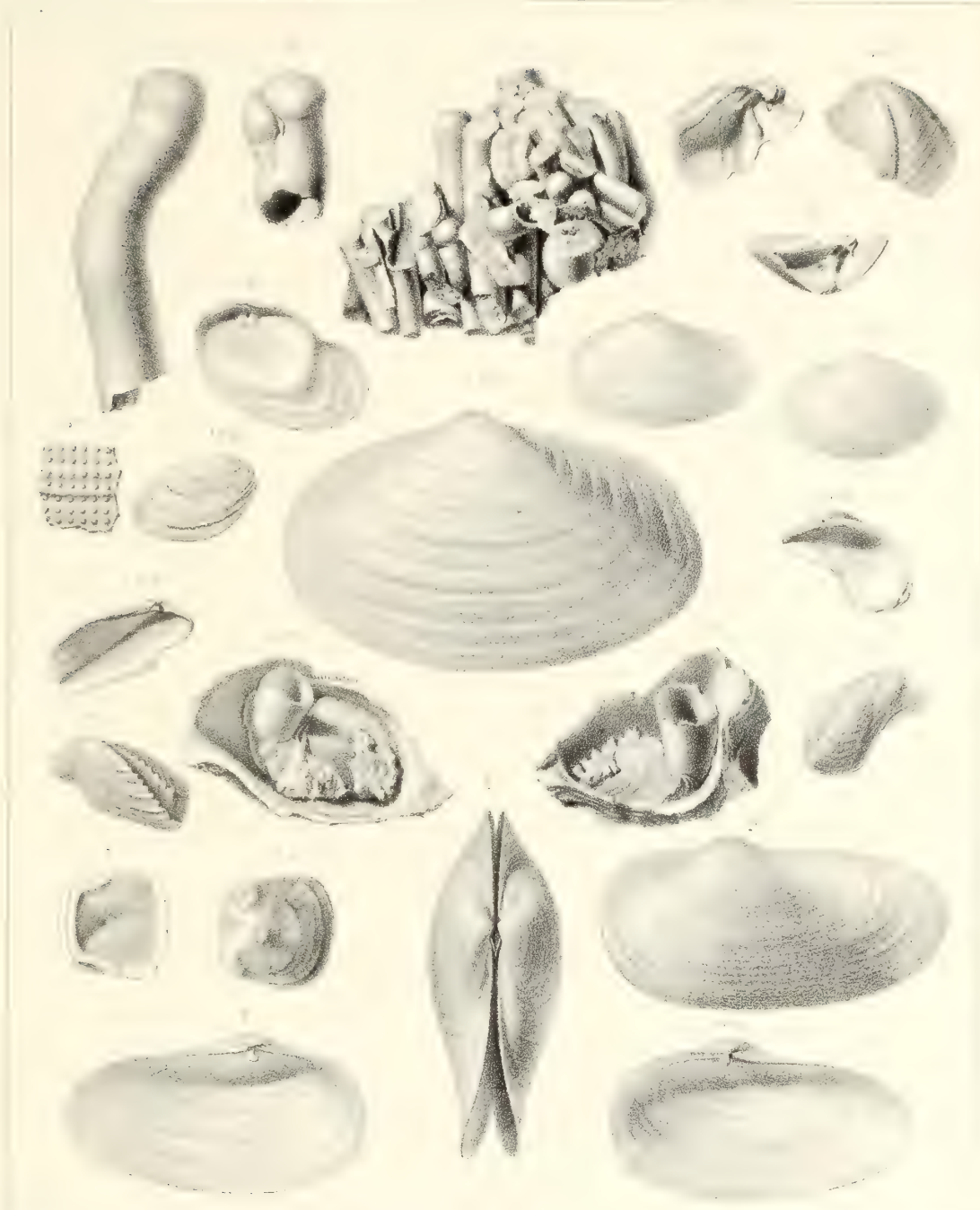
Indit. Anst. v. J. Lehnhardt in Mainz.

1. Buccinum Cassidaria Broch.
2. uniseriale Sandb.
3. sp.
4. Cancellaria eoulsa Brand. sp.
5. "lat. sp." speciosus Del. oth. sp.

6. Cornutella globosa Pfe.
7. "nata Simat
8. Sandbergeria cancellata Nils.
9. Vermetus cristatus Sandb.
10. "fissus angustior n. n.
11. "fissus angustior n. n.







Lith. Anst. v. J. Leubhardt in Mainz.

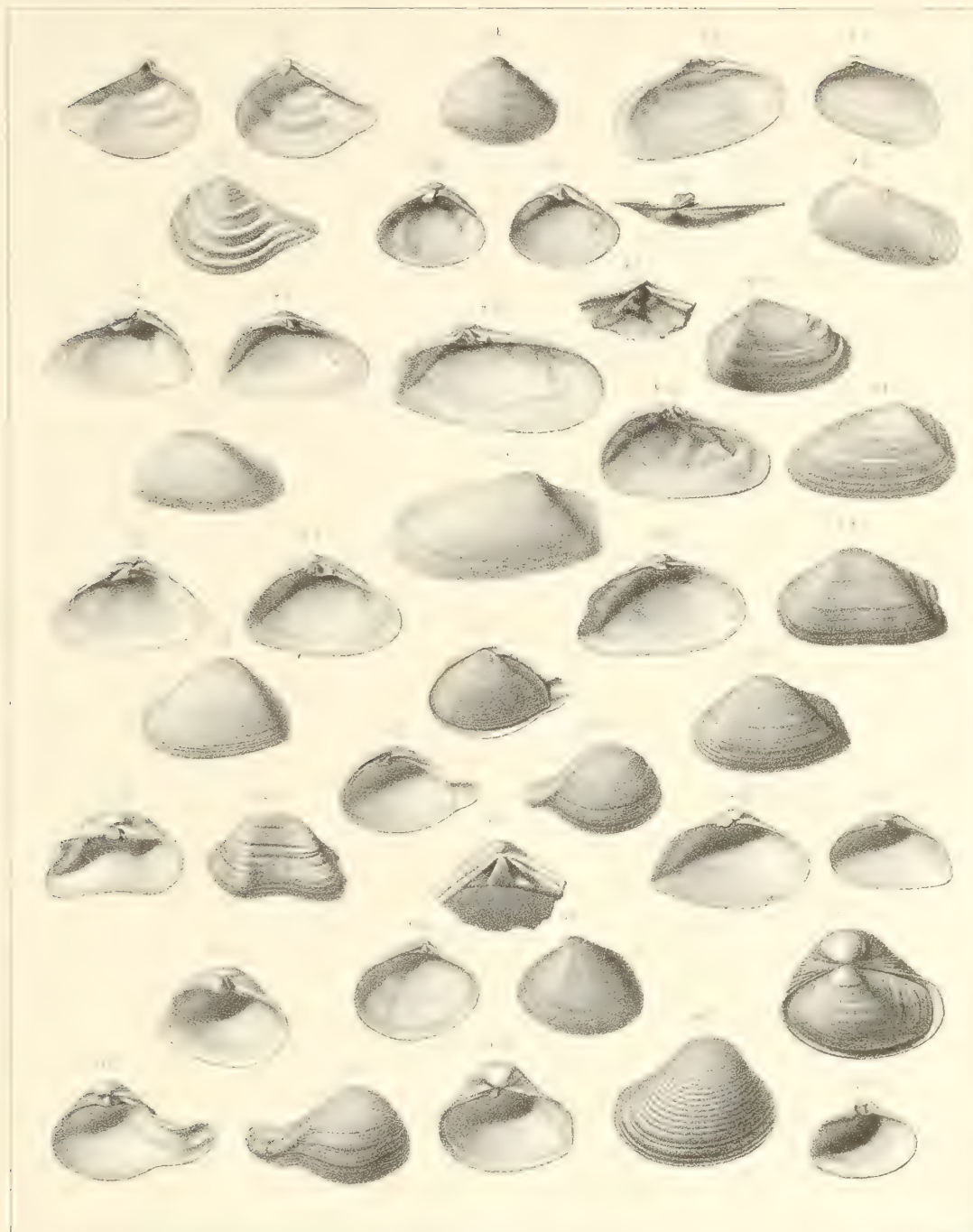
Wiesbaden, Chr. W. Kreidels Verlag

1 *Teredo anguinus*, Sandb.  
2 *Parapholas subtripartita*, id.  
3 *Clavagella latipes*, id.

4 *Thracia faba*, Sandb.  
5 *Saxicava crassa*, id.

6  
7 *Sundbergeria cancellata*  
8





Mith. Anst. von J. Lehnhardt in Mainz

Wiesbaden, C. W. Kreidels Verlag

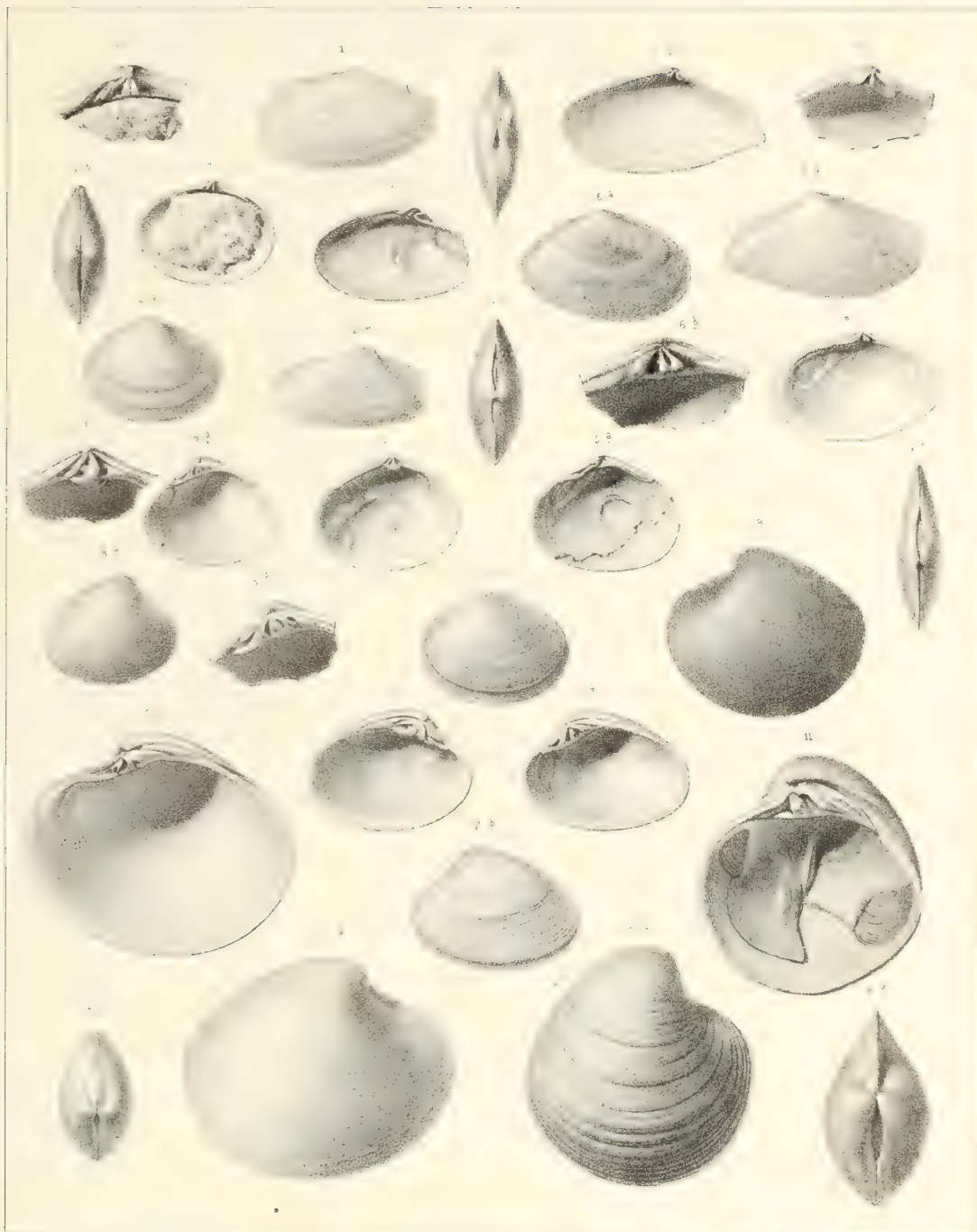
1. *Sphenopsis scalaris*, Braun sp
2. *Sphenia papyracea*, Sandb
3. *Corbulomya triangula* Nyst.
4. ————— *elongata* Sandb

5. *Corbulomya nitida*, Sandb
6. ————— *sphenioides*, id
7. ————— *crassa*, id
- 8 // *Corbula subarata*, id
9. *Macra fabula*, Sandb

10. *Corbula longirostris*, D
12. ————— *byugalis*, San
13. —————
14. —————







Lith. Anst. v. J. Leinhardt in Mainz

Wiesbaden, Chr. W. Kreidel's Verlag

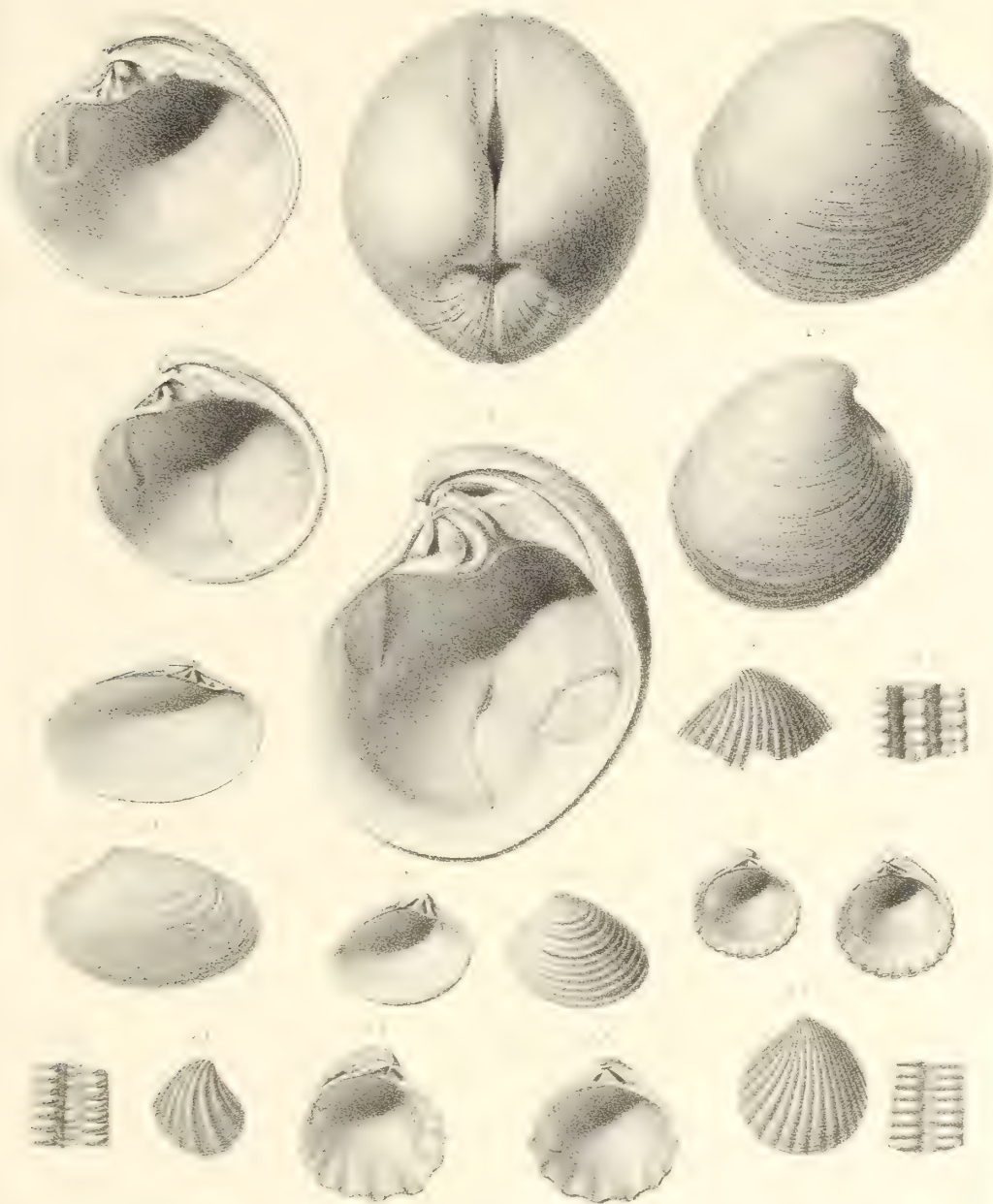
J. B. Kolb lith.

- 1 *Ramula plana*, Desh.
- 2 *Thracia elongata*, Sandb.
- 3 *Synsmya elegans*, Desh.

- 4 *Tellina Heberti*, Desh.
- 5 — *fabia*, Sandb.
- 6 — *Nystu*, Desh.
- 7 *Cytherea subarata*, Sandb.

- 8 *Cytherea depressa*, Desh.
- 9 10 — *fragilis*, Desh.
- 11 — *incrassata*, Sowm.





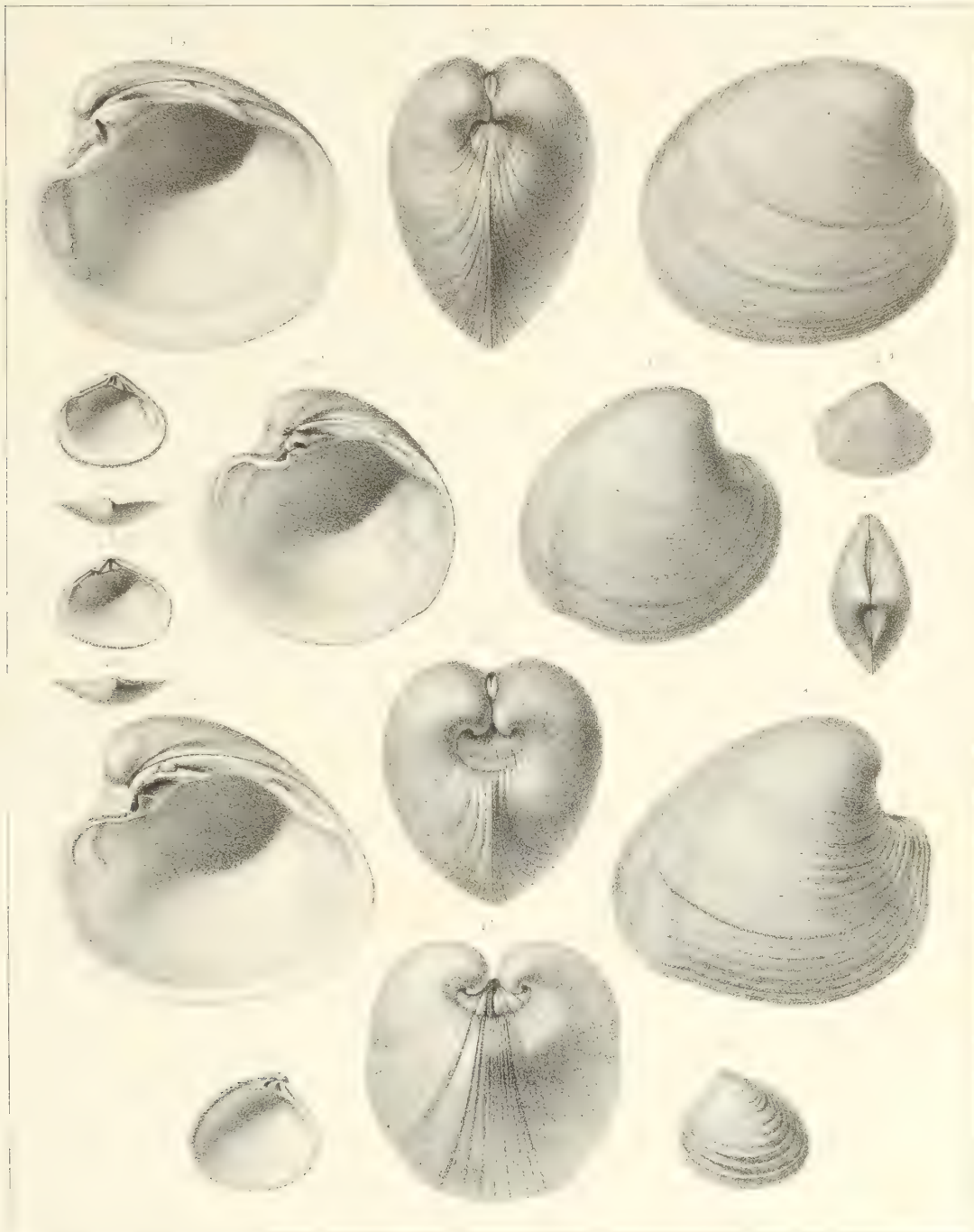
2 ead var obtusangula, Sandb.  
3 ead var solida id

Sandb. 5

7  
8







n. Anst. v. J. Leinhardt in Mainz

Wiesbaden, Chr. W. Kreidels Verlag

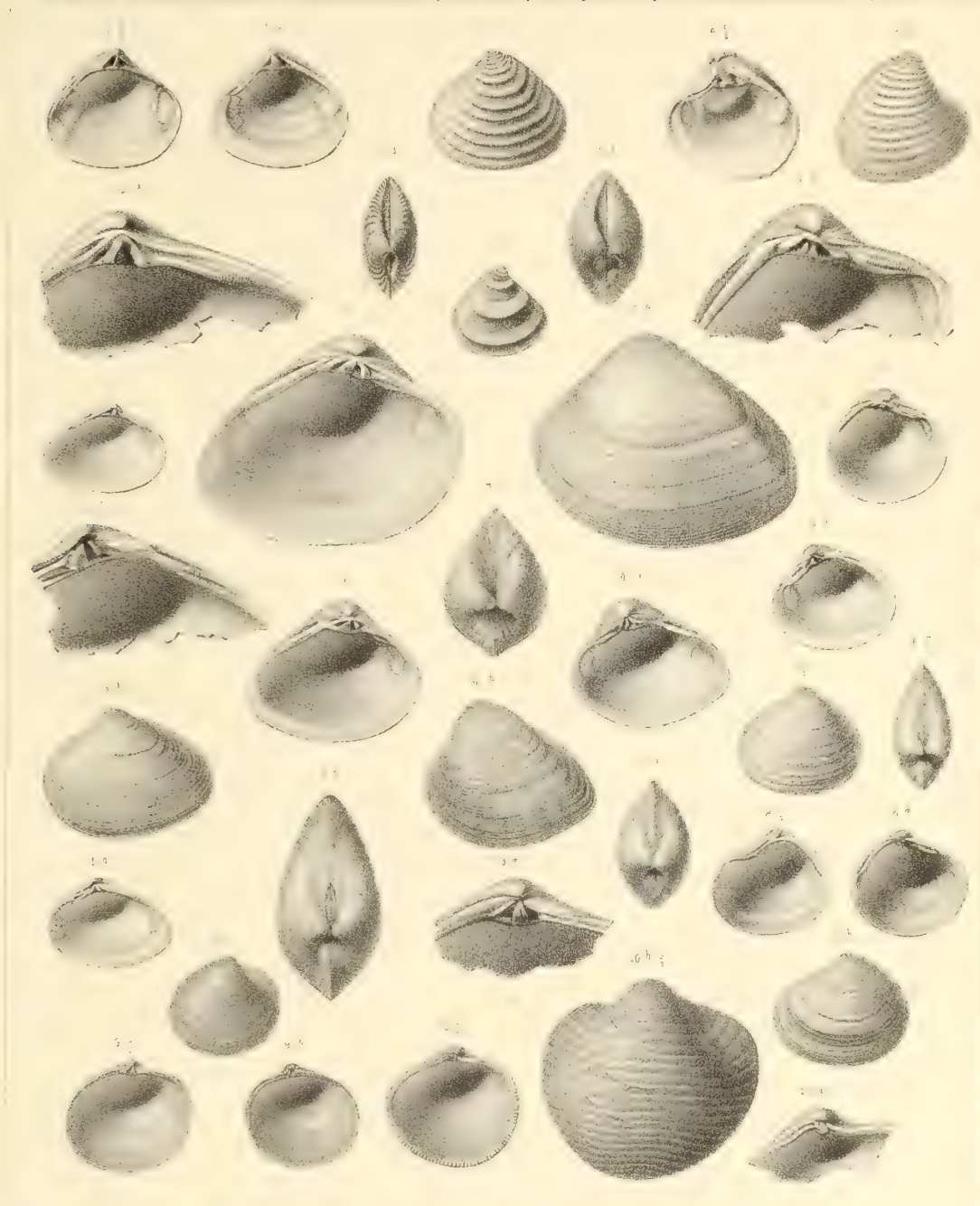
J. B. Kolb lith.

1 *Cyprina rotundata* A. Braun  
2 *Isocardia cyprinacea* id.

3 *Isocardia subtransversa* D'Orb.

4 *Isocardia* M.  
*Wiedea lamellata* Sandb.





Lith. Anst. v. J. Lehnardt in Mainz.

Wiesbaden, Ch. W. Kreidel's Verlag.

J. B. Kolb, lith.

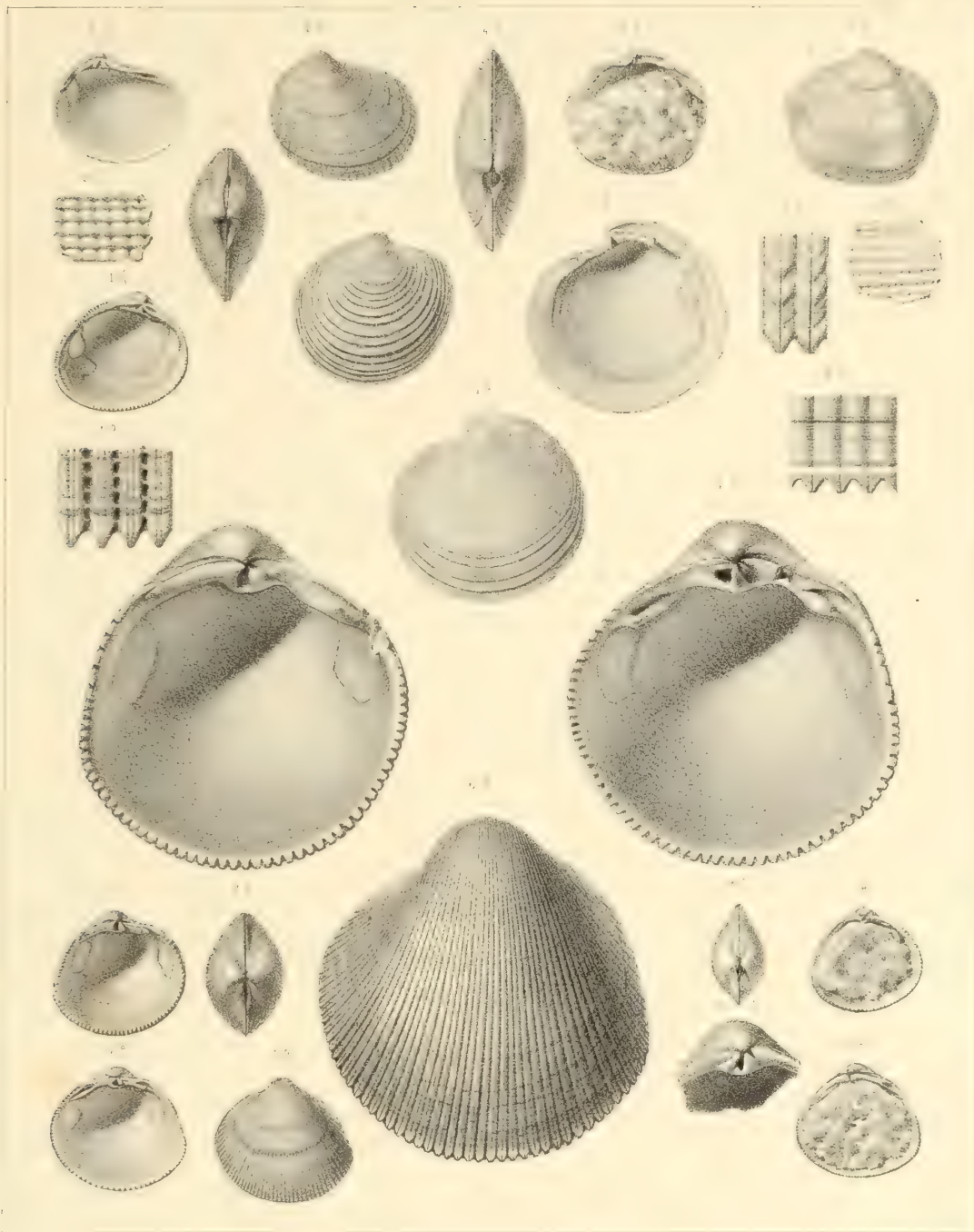
1. *Astarte plicata*, Merz.
2. *rostrata*, Sandb.
3. *Cyrena semistriata*, Desh.

5. *C. (Corbicula) donacina*, Braun.
6. *Favosia*, Desh.
7. *Pisidium antiquum*, Braun.

8. *Poronia rosea*, Sandb.
9. *Diplodonta fragilis*, Braun.
10. *Lucina undulata*, Lam.







Lith. Anst. v. J. Lehnhardt in Mainz.

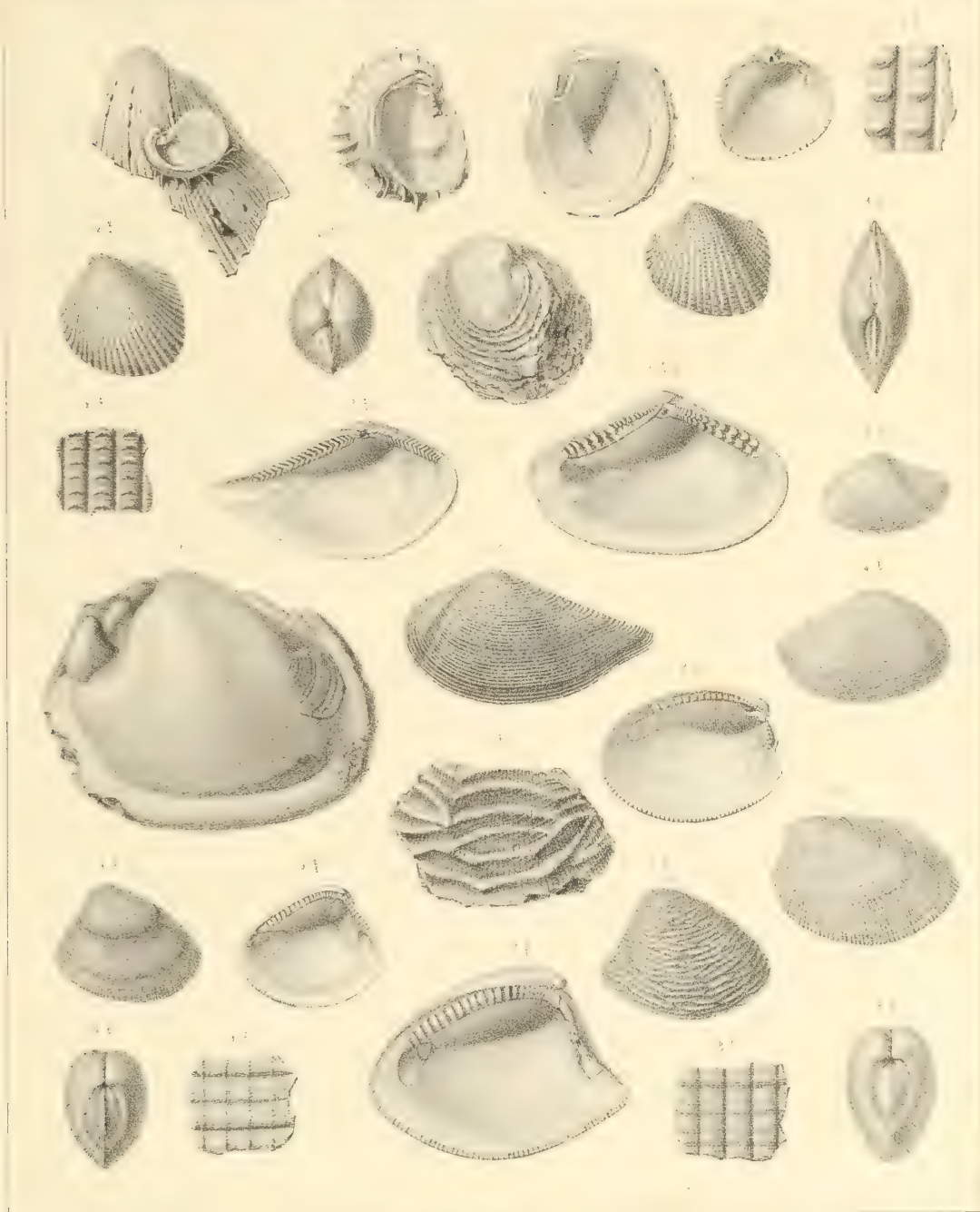
Wiesbaden, C. W. Kreidel's Verlag.

- 1 *Woodia lamellosa*, Sandb.
- 2 *Lucina squamosa*, Lam.
- 3 *Lucina Heberti*, Desh.

- 4 *Lucina tenuistria*, Heb.
- 5 *Lucina* *Lucina*

- 6 *Cardium anguliferum*, S.
- 7 *Cardium* *comatulum* Frey.





Leit. Anat. v. J. Lehnhardt in Mainz

Abgeb. v. W. Krieger in Mainz

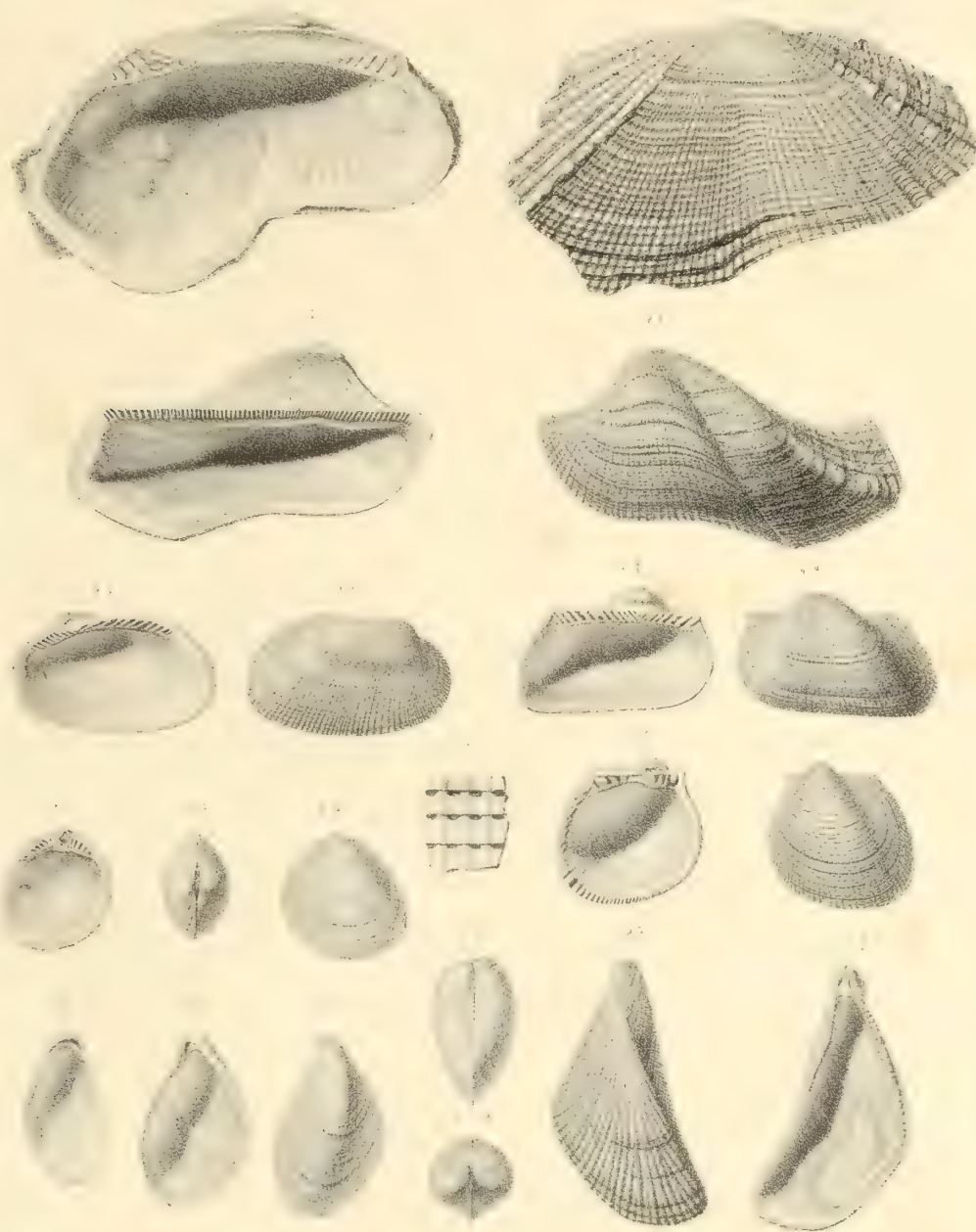
1. *Chama ecogyra*, Braun
2. *Cardium Rautini*, Heß
3. — *scobinula*, Merian

4. *Leda Deshayesiana*, Duch. sp.
5. — *gracilis*, Desh.
6. *Unio pinguis*, Sandb.

7. *Nucula Chastelii*, Nyst.
8. — *Lyelliana*, Bosq.
9. — *piligera*, Sandb.







Lith. Anst. v. J. Leinhardt in Mainz.

Wiesbaden, Ch. W. Kreidels Verlag.

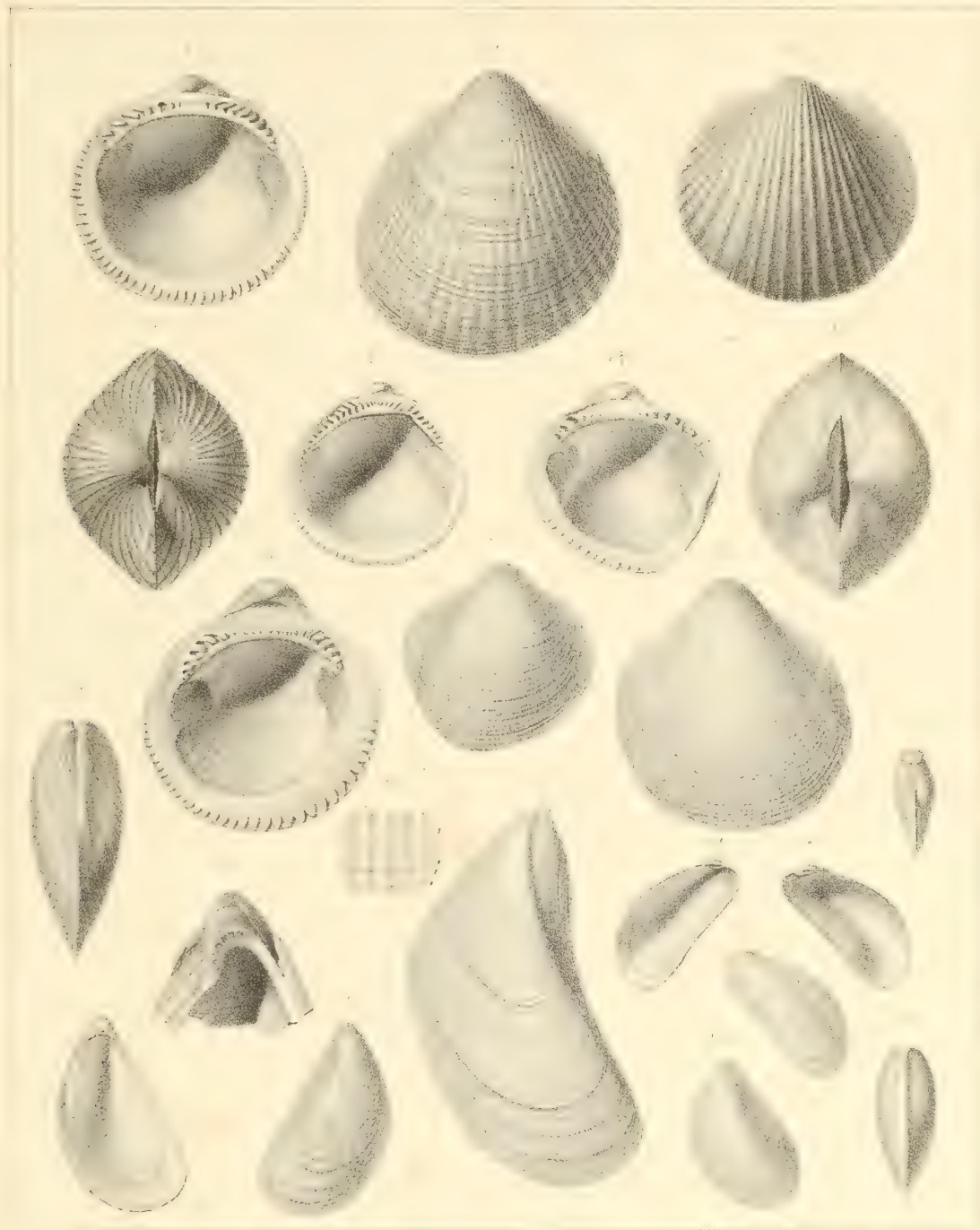
J. B. Koch lith.

1 *Arca rudis*, Desh.  
2 — *Sandbergeri*, id.  
3 — *decussata*, Nyst

4 *Arca pretiosa*, Desh.  
5 *Limopsis iniquidens*, Sandb.

6  
7  
8





Tafel Anst. v. J. Lehnardt in Mainz

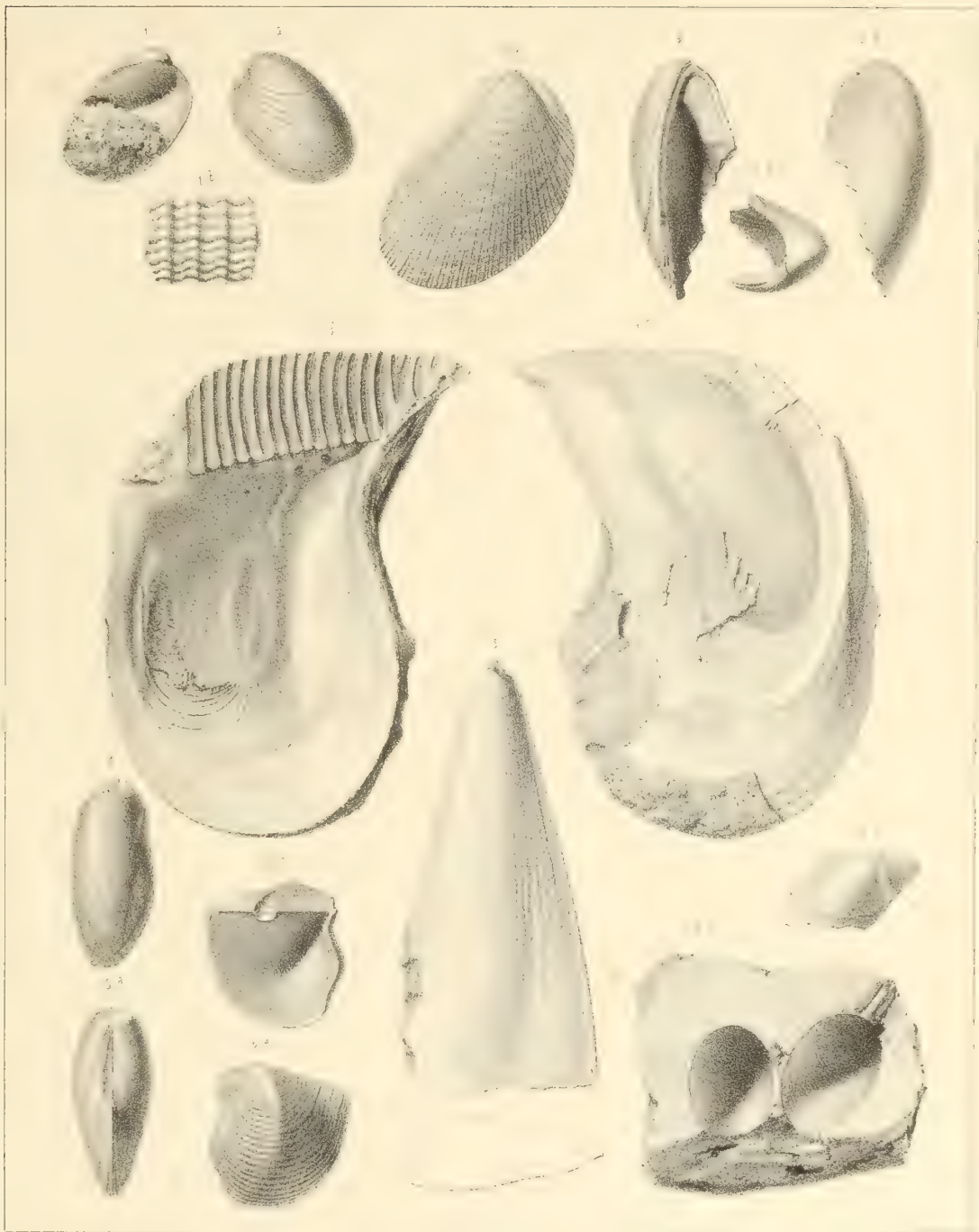
Wiesbaden, Ch. W. Kraedel Verlag.

J. B. Ebelich

- |                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| 1. <i>Pectunculus angusticostatus</i> , Lam.  | 3. <i>Pectunculus obovatus</i> , Lam.   | 6. <i>Mytilus socialis</i> , A. Braun  |
| 2. <i>id.</i> var. <i>obliteratus</i> , Desh. | 4. <i>Mytilus acutirostris</i> , Sandb. | 7. <i>Modiola angusta</i> , <i>id.</i> |
|                                               | 5. ——— <i>Faujasii</i> , Brugni         |                                        |







Engraving by F. Sandberger, Mainz.

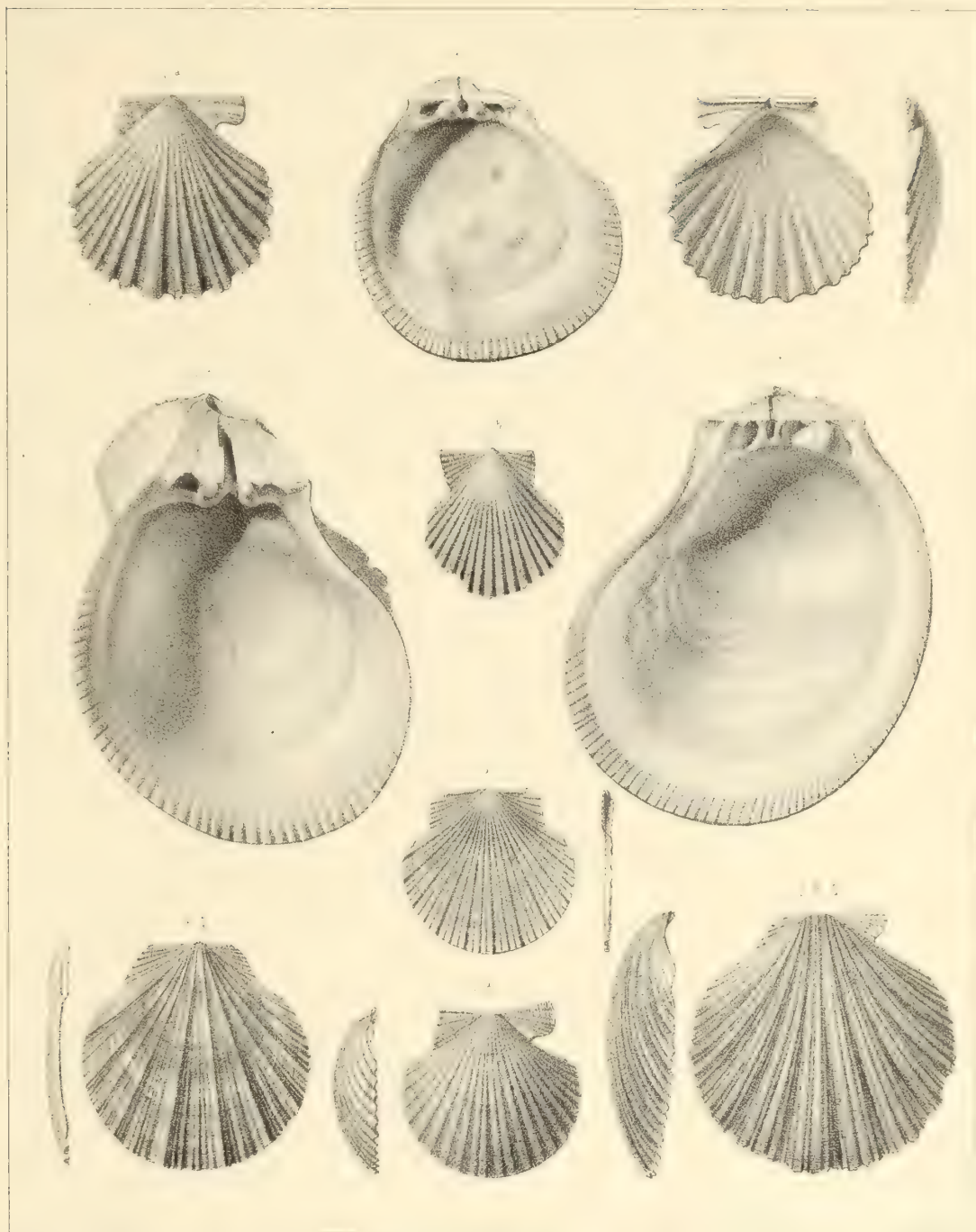
Wiesbaden, Ch. W. Kreidels Verlag.

1. *Modiola micans*, Braun.
2. *Nijstii* Kickx sp.
3. *Perna* indeterm.

4. *Perna Sandbergeri* Desh.
5. *Avicula stampinensis* id.

6. *Avicula ecaudata*, Sordani
7. *Lima Sandbergeri*, Desh.
- 8.





Leimbach in Mainz.

H. Baden. Ch. W. Krensch. Lith.

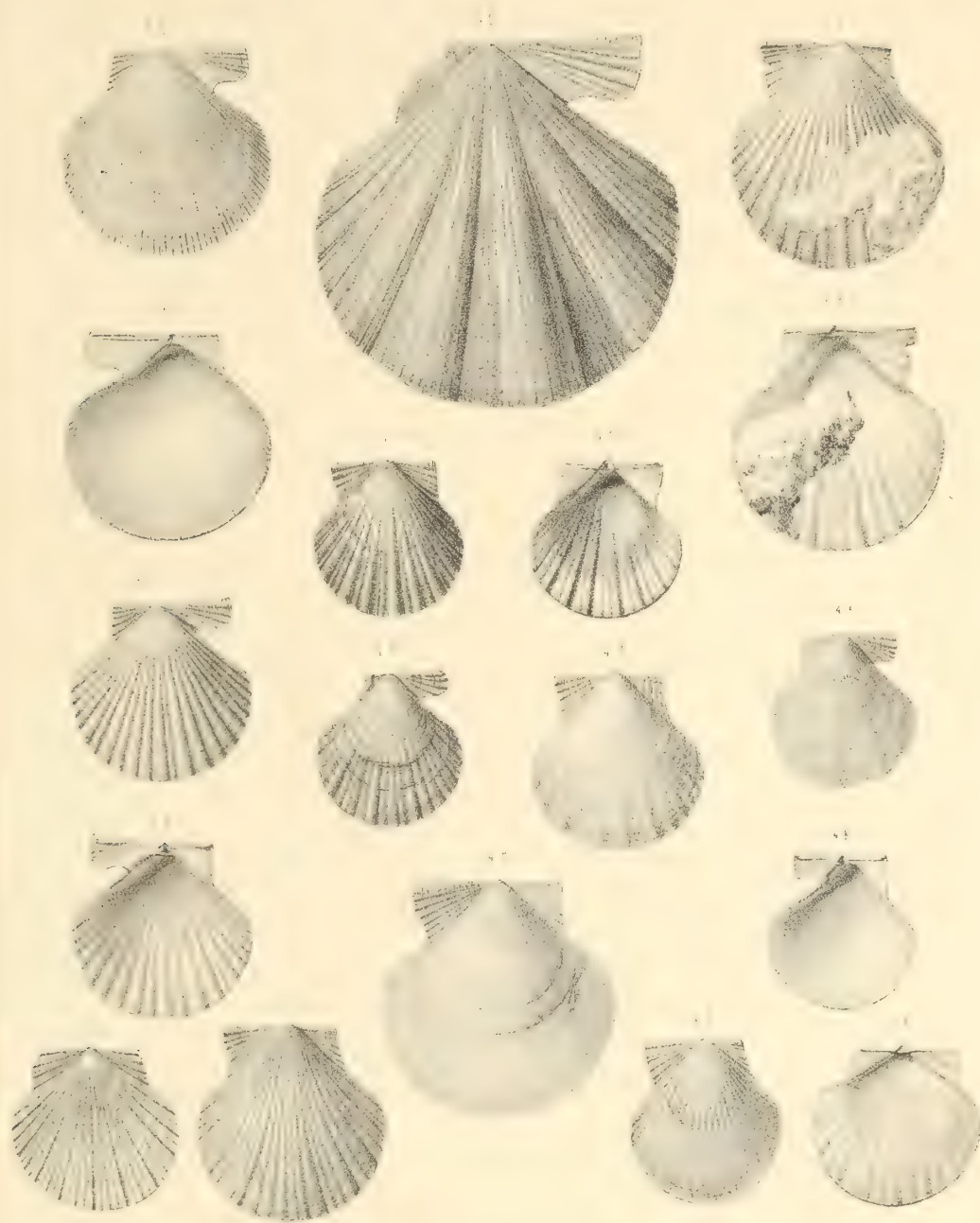
1. *Spodijlus tenuispina*, Sandb.

2. *Pecten Hoeninghausii* Defr.  
3. " " " " Br.

4. *Pecten compositus*, Goldf.







1 lith. Zosf v. J. Leimhardt in Mainz.

Wiesbaden, Ch. W. Kreidel's Verlag.

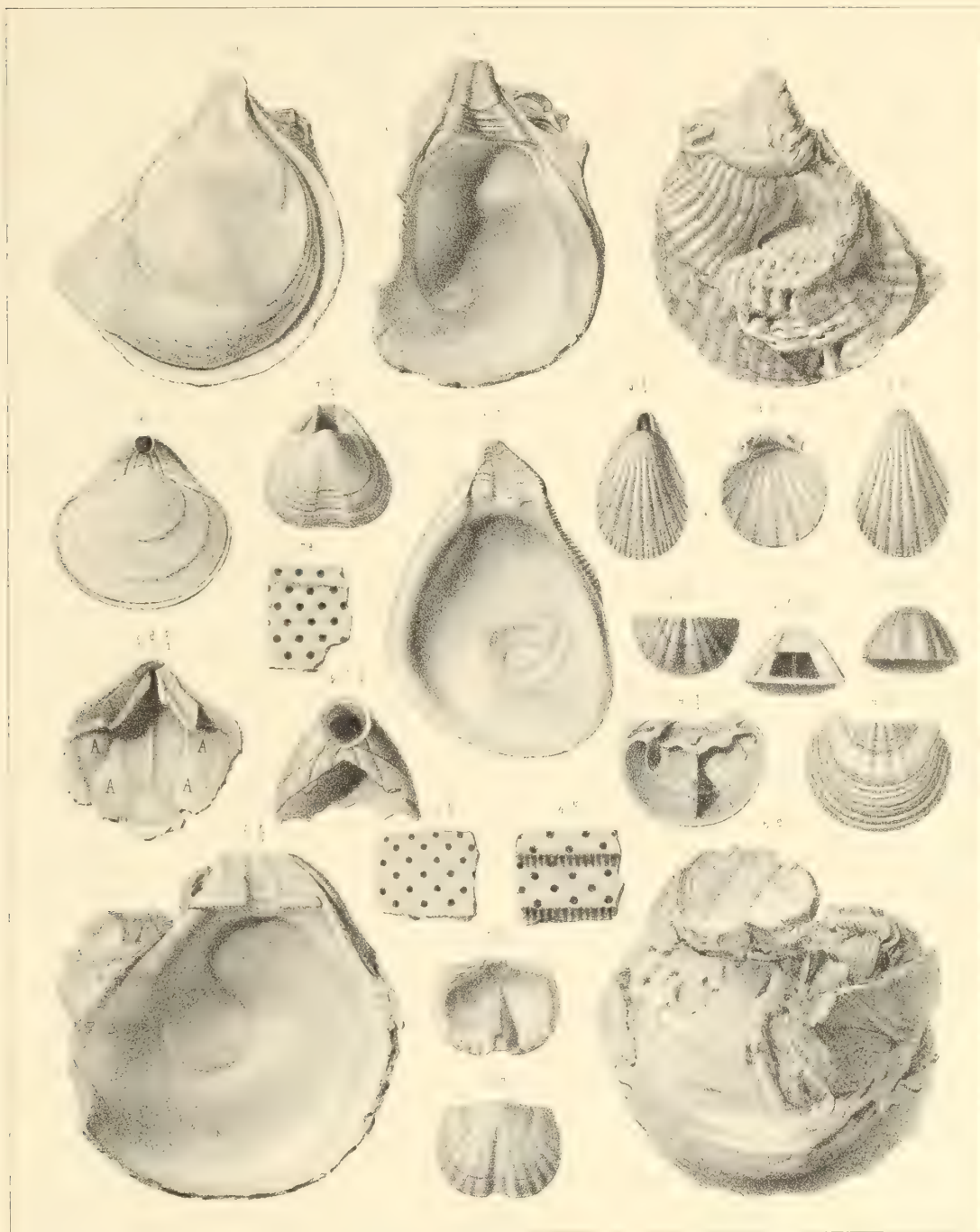
J. B. Kolb lith.

1. *Pecten fasciculatus* Sandb.

2. *Pecten decussatus*, v. Münster  
3 4 6. — *pictus*, Goldfuss

5. *Pecten inaequalis* Brunn var





Lith. Anst. v. J. Leinhardt in Mainz

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J. B. E. 1874

- 1 *Ostrea cyathula*, Lam.  
2 *Terebratulina opercularis*, Sandb.

- 3 *Terebratulina fasciculata*, Sandb.  
4 *Argiope subradiata*, id.  
5 ——— *crenata*, id.

- 6 *Ostrea callifera*, Lam.  
7 *Argiope megacephala*, Sandb.







Hof. Anst. v. J. F. Schardt in Mainz.

Wiesbaden, Ch. W. Kreidel's Verlag.

J. B. Kolb lith.

- A. *Spondylus tenuispina*, Sandb.  
 1. *Ostrea callifera*,  
 2. — *rhenana*, Merian.  
 3. *Plicatula dispar*, Sandb.  
 4. *Helix densipapillata*, Sandb.  
 5. *Glandina splendens*, Braun sp.  
 6. *Nematura planapicalis*, Sandb.  
 7. *Pupa cryptodus*, Braun.  
 8. *Helix colorata*, Braun.  
 9. — *costulato-striata*, Creppin.

10. *Pupa alloendus*, Sandb.  
 11. — *subconica*, id.  
 12. *Cyrena concentrica*, id.  
 13. *Murex areolifer*, Sandb.  
 14. *Pleurotoma biconvoluta*, Sandb.  
 15. *Clausilia articulata*, id.  
 16. *Pupa impressa*, id.  
 17. *Acicula filifera*, id.  
 18. *Helix euglypha*, Reuss.  
 19. *Carychium costulatum*, Sandb.  
 20. *Helix impressa*, id.

21. *Planorbis cordatus*, Sandb.  
 22. *Paludina succineaformis*, id.  
 23. *Tiphys pyruloides*, A. Braun.  
 24. *Cyclostremma rotellaeforme*, Grut.  
 25. *Turbonilla compressicosta*, Sandb.  
 26. *Pupa microhelix*, id.  
 27. *Neritina fluviatilis*, id.  
 28. *Pleurotomaria amblyconus*, Sandb.  
 29. *Patella papyracea*, Sandb.  
 30. *Bulla dechlois*, Sandb.



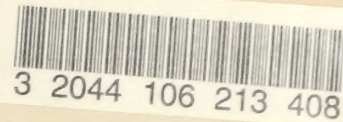












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